THE IMMERSIVE LEARNINGSCAPE 2.0

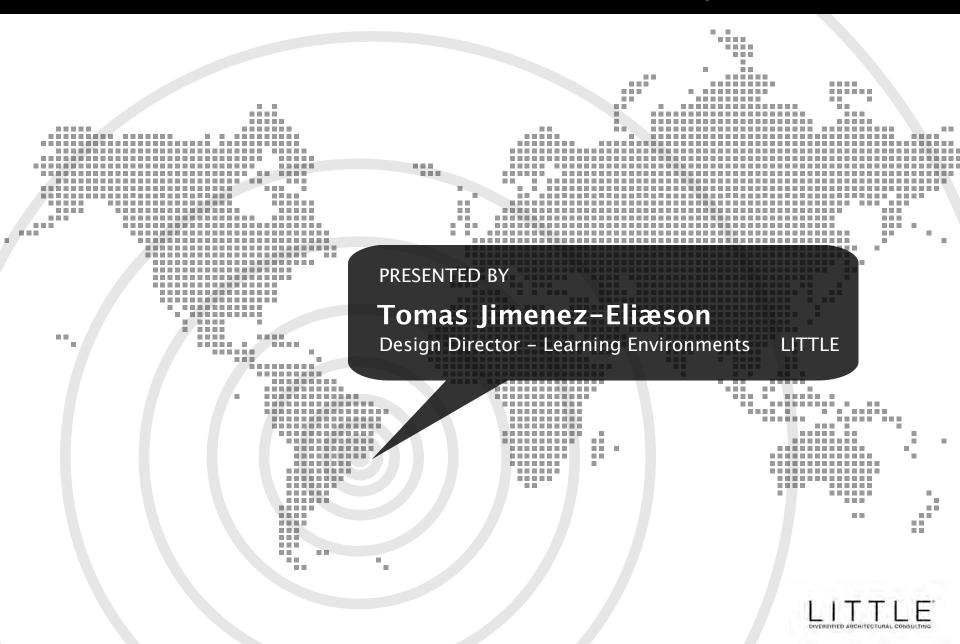
A Pattern Language for the Design of the Learning Revolution Environments





THE IMMERSIVE LEARNINGSCAPE 2.0

A Pattern Language for the Design of the Learning Revolution Environments



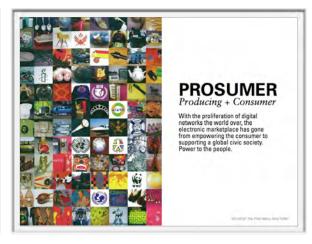
Learning Objectives

- 1. "Sign of the Times" in Education
- 2. We have entered a Learning Revolution.....
- 3. A Pattern Language for Creating Immersive Learning Environments
- 4. Case Studies

The Immersive LearningScape 1.0 Recap



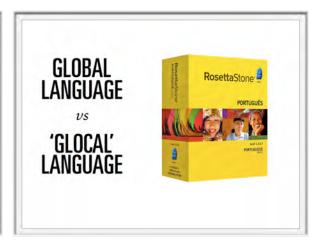




- Student Discontent
- Changing Technology
- **3** Empowered Individuals







- 4 Teaching Dilemmas
- **5** A Customizable World
- **6** Global Equalization





Is our current education making us competitive in the global marketplace?



What skills will be needed to excel as we further move into the 3rd millennium?



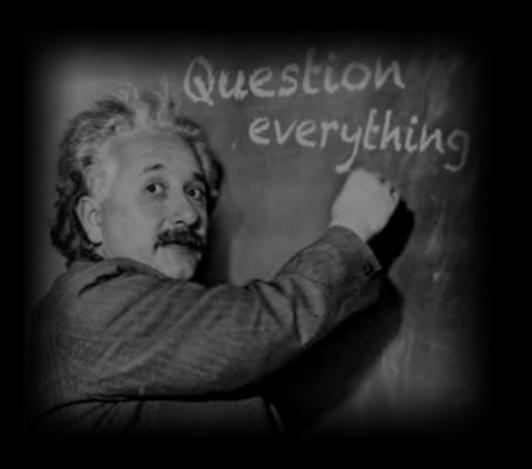
What will their jobs be like?

10 JOBS THAT DID NOT EXIST 10 YEARS AGO

- App Developers (Creative Tech)
- Market research Data Miner (Library science Info gathering/summarizing)
- Millennial Generational Expert (Social Networks)
- Social Media Manger (Social Networks)
- Chief Listening Officer (Social Spy)
- 6 Cloud Computing Services (Data Storage and Sharing)
- Elder Care (Health and Communication Baby Boomers)
- Sustainability Expert (Global Warming / Green Economy)
- User Experience Design (Right Brain thinking)
- 40 Academic and Admissions Consultant (Education and Access)



Are learning spaces adequate to acquire the needed 21st century skills?



How do you create the ultimate inquisitive learning environment?



How might we enable a learning environment for creative and innovative thinking?



As acquiring content becomes more automated, and teamwork across disciplines becomes critical to a creative, conceptual, and innovation society, what kinds of learning spaces promote transdisciplinarily collaboration?



Why are we teaching in the same spaces as we did in the 19th Century?



Given the increasing introduction of technology in the classroom, what will be the role of the teacher?

LEARNING OBJECTIVE #1

SIGN OF THE TIMES

As the world flattens, education will heighten.



19th 20th

21st

COUNTRIES

COUNTRIES

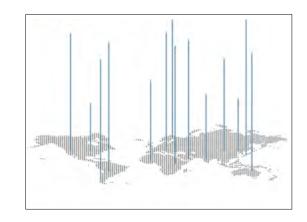
CORPORATIONS

CORPORATIONS

INDIVIDUALS INDIVIDUALS

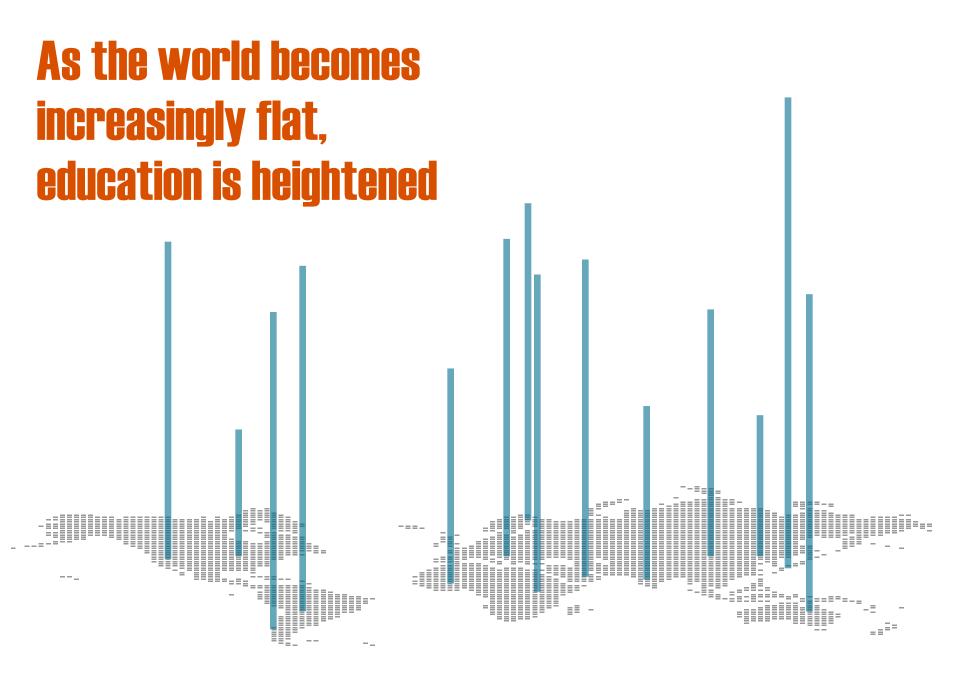






As the world becomes increasingly flat,



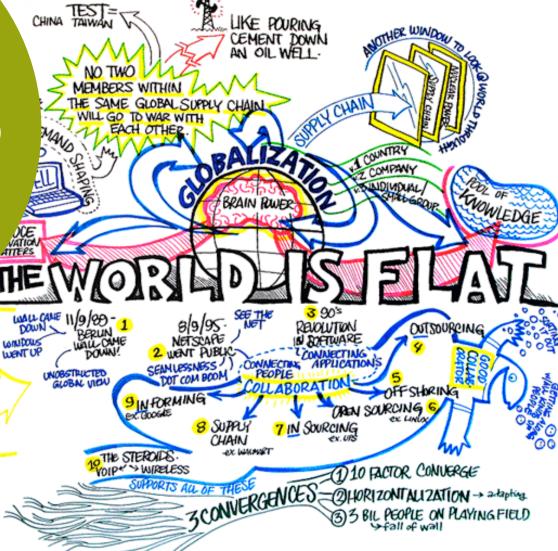


COMPLEX CHALLENGES

IN A

GLOBAL WORLD

Multi-disciplinary teams needed to solve complex challenges

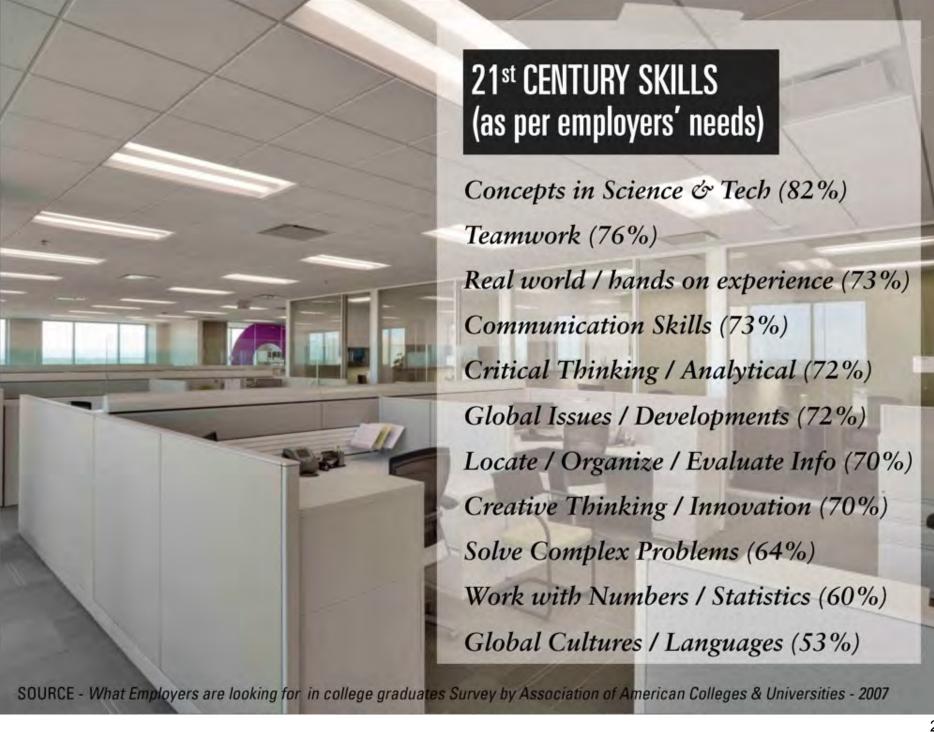


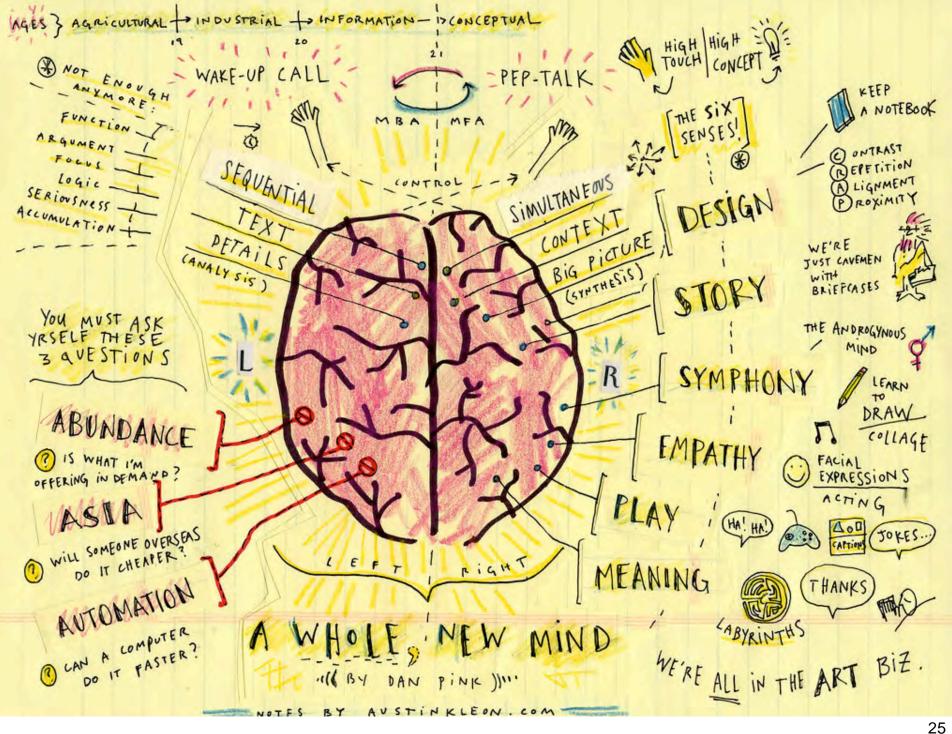
Thomas L. Friedman on The Charlie Rose Show discussing his book, "The World is Flat" • 04.05.05 graphic facilitation by Brandy Agerbeck • Loosetooth.com













I'M BORED 99 PERCENT OF THE TIME.

California

SCHOOL IS REALLY BORING.

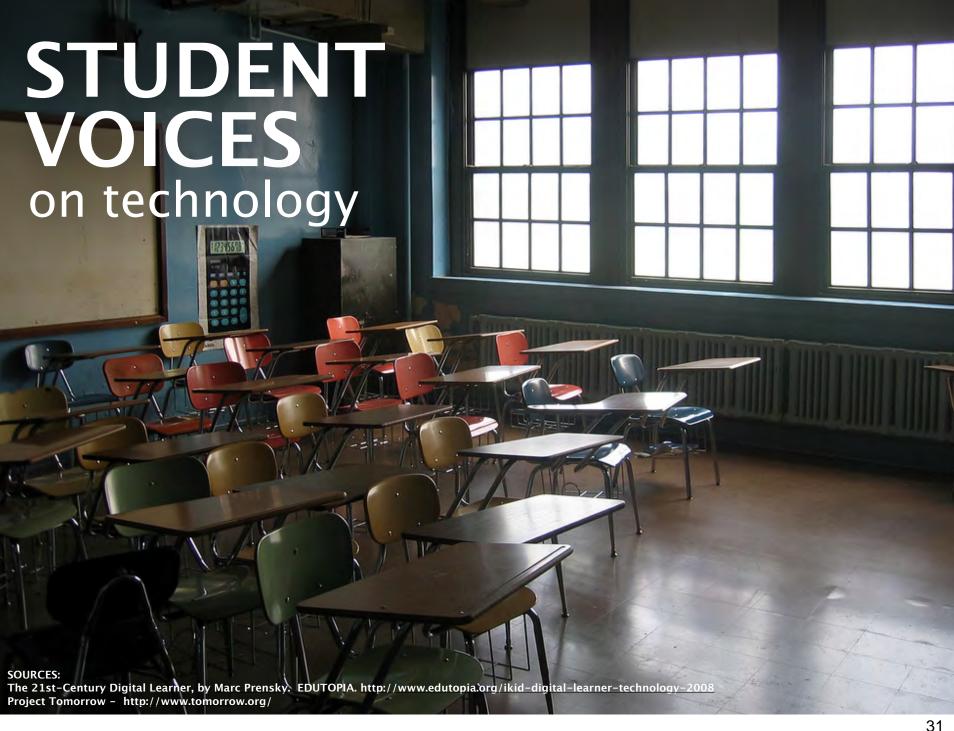
Virginia

ENGAGE US MORE.

Texas

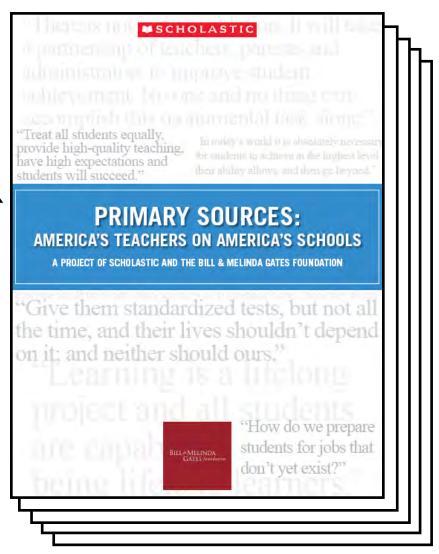
POINTLESS. I'M ENGAGED IN TWO OUT OF MY SEVEN CLASSES.

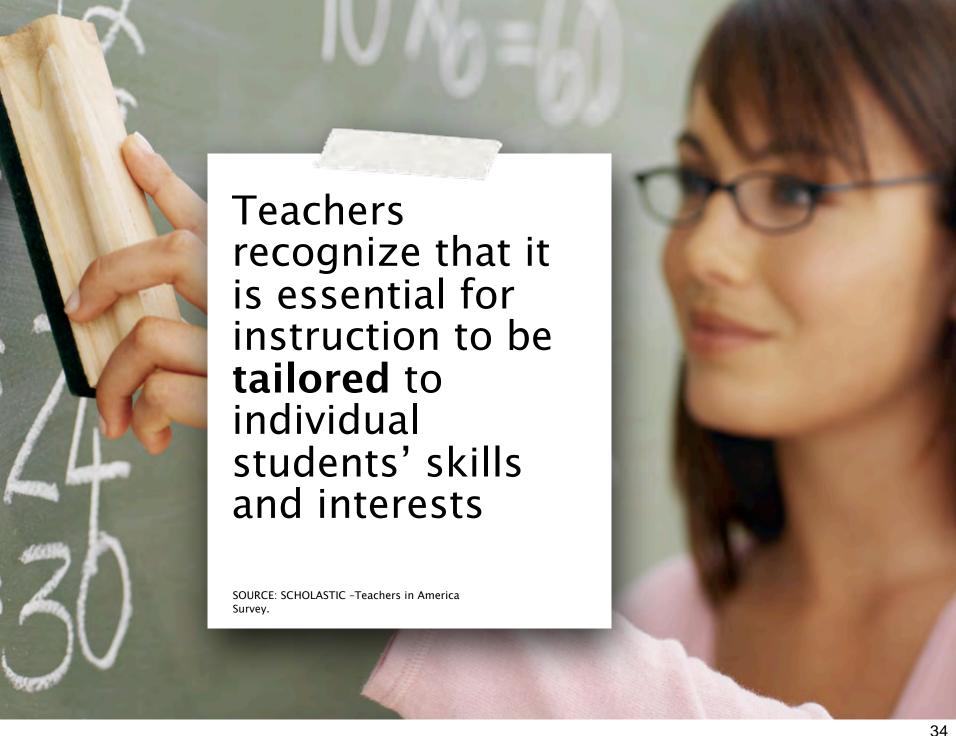
Florida



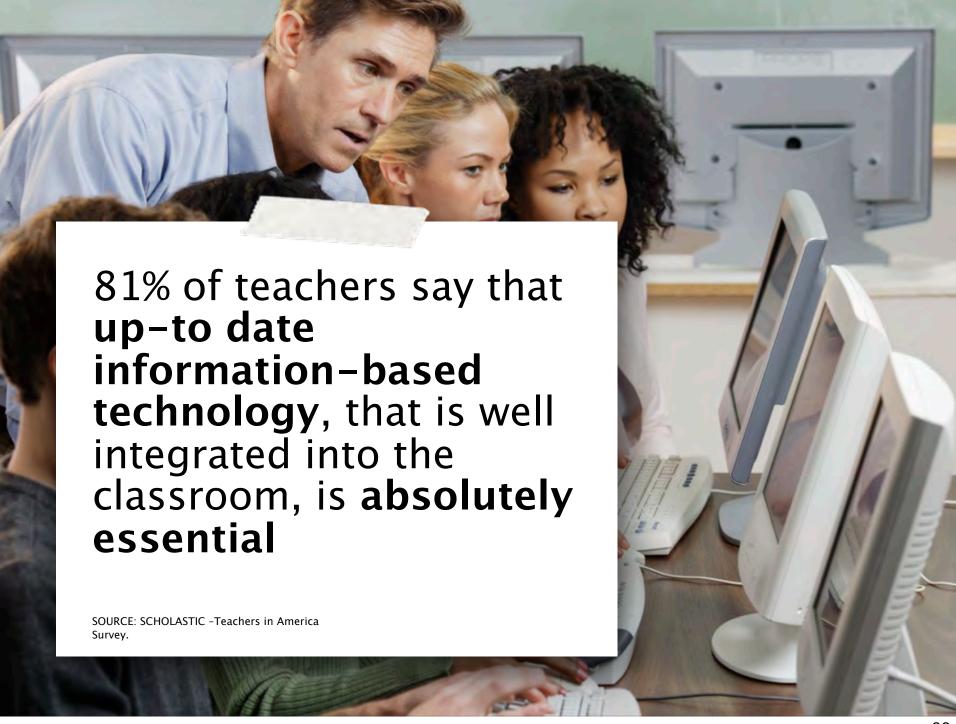


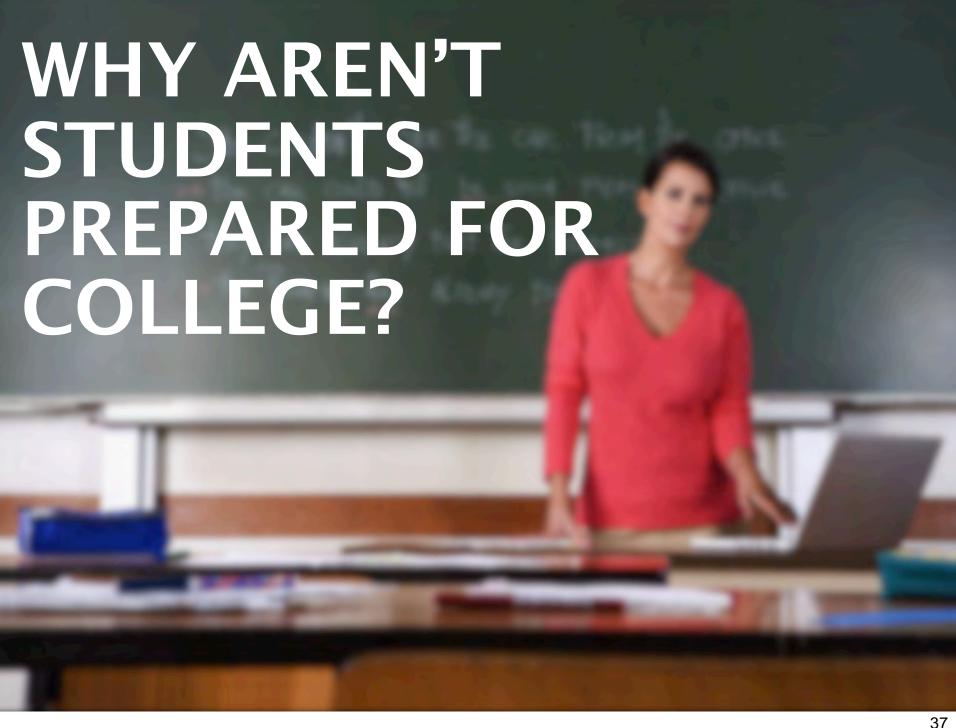
TEACHER VOICES on innovation









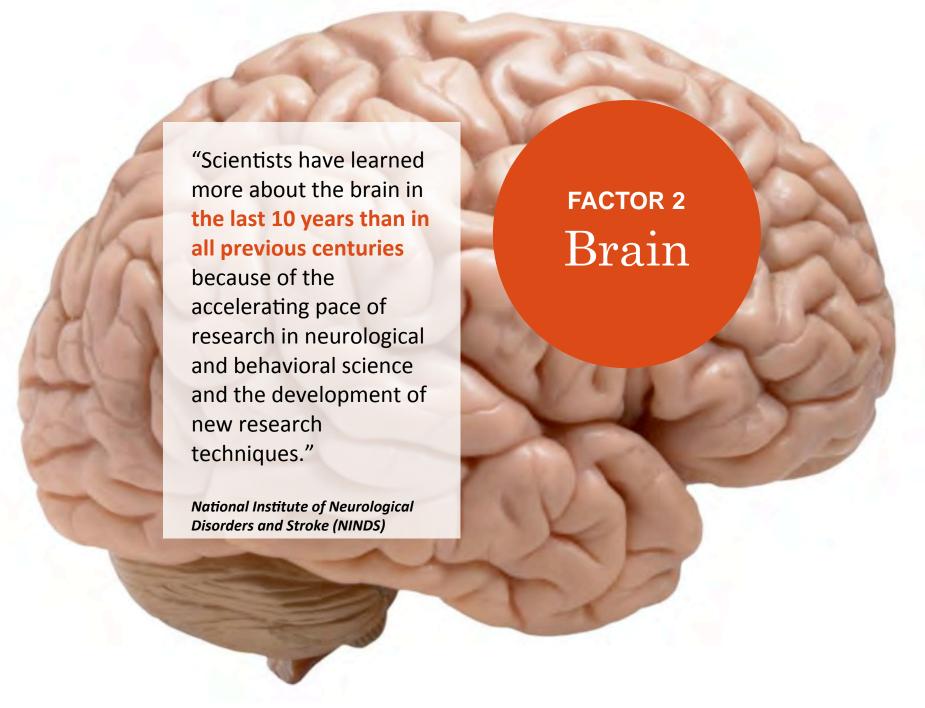


Overall, teachers ranked "Lack of motivation" as the #1 reason

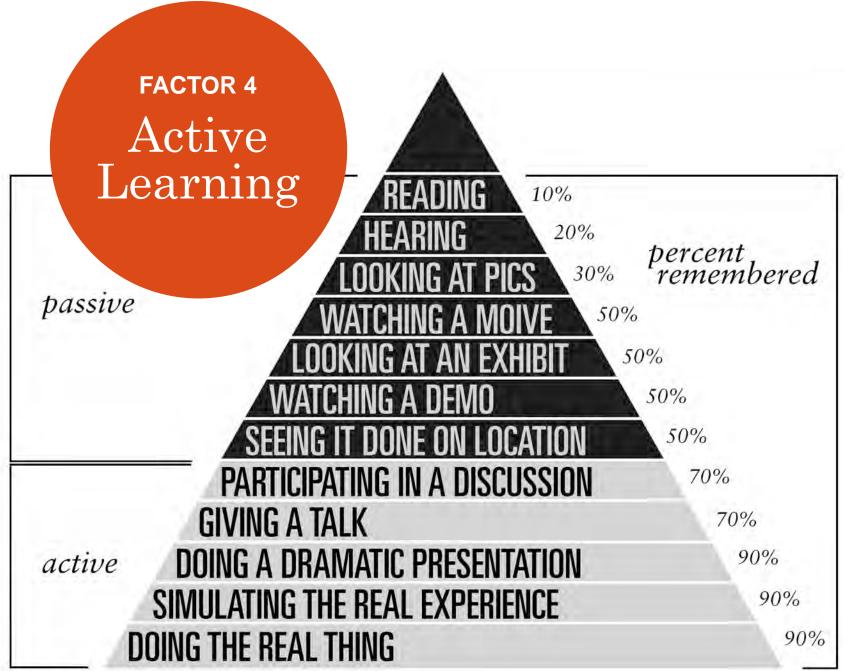
	TOTA	ES	MS	HS
Lack of participation in CP	2%	2%	2%	3%
Poor reading and comm. skills	19%	20%	17%	15%
Lack of critical thinking skills	17%	18%	16%	17%
Lack of encouragement	27%	34%	22%	15%
Lack of motivation	34%	25%	43%	49%
Not sure	1%	1%	0%	1%





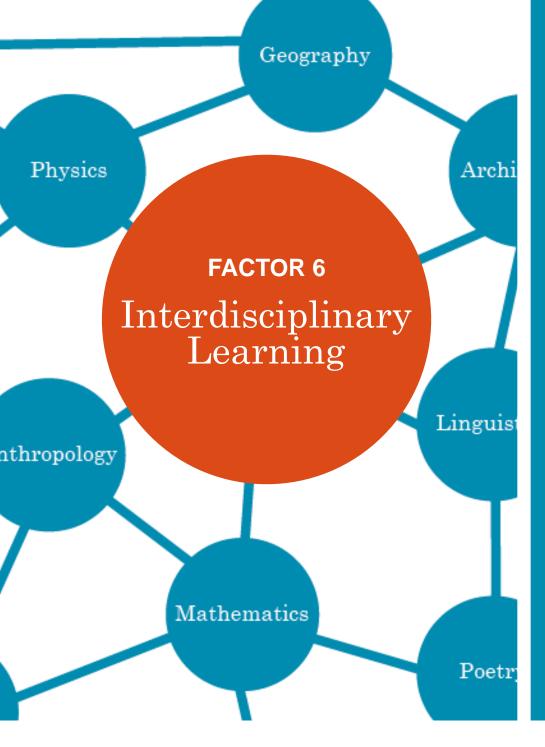






SOURCE - Active Learning - Creating excitement in the classroom. 1991. Bonwell and Eison





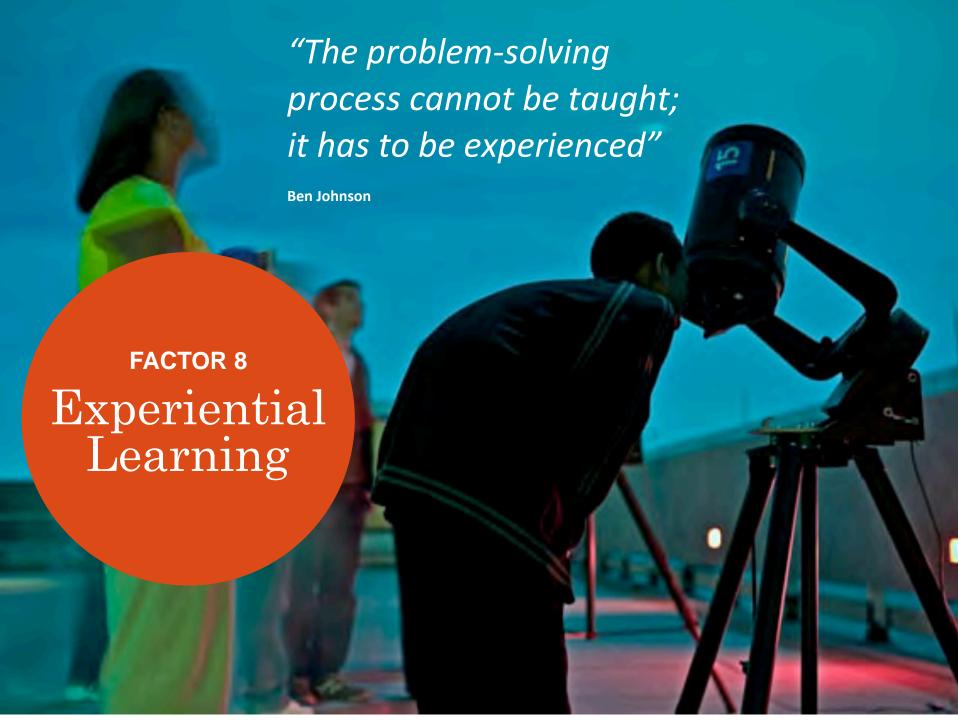
20th Century

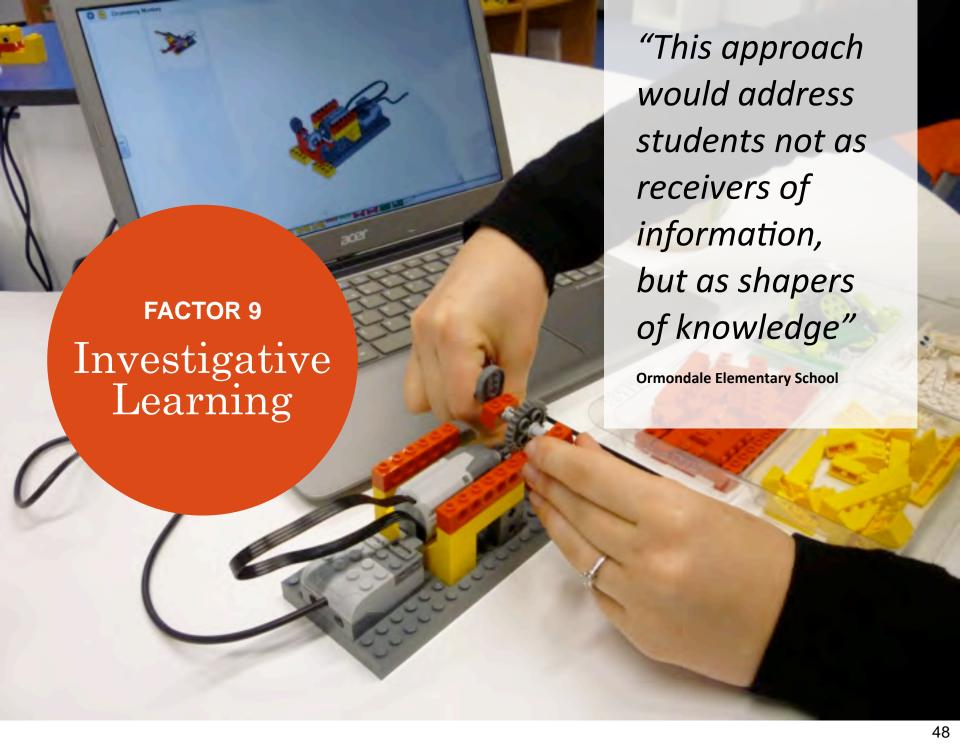
Linear Learning =
1 isolated discipline
per hour

21st Century

Asynchronous Cross-Disciplinary Learning = Multiple disciplines simultaneously











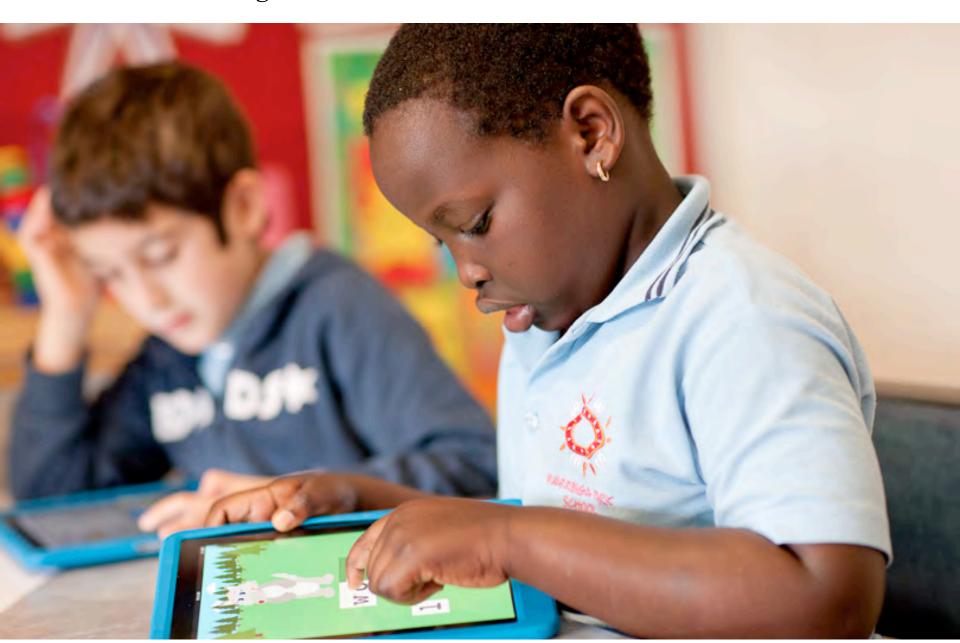
Technology Teamwork Technology PERCEPTIVE PIXEL

Technology

Augmented Reality Technology



Technology
Blended Learning



Technology

1-to-1 learning



Technology

Teacher 1-to-1 supervision



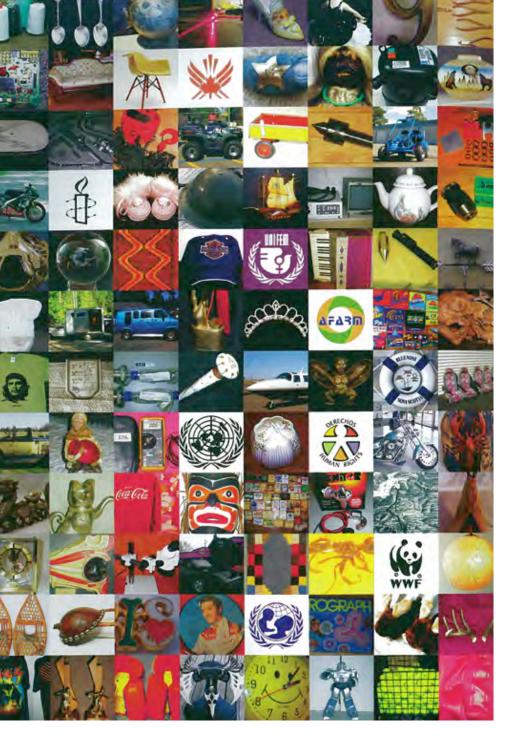
Flipped Classroom

WHAT IS THE FLIPPED CLASSROOM?

The flipped classroom inverts traditional teaching methods, delivering instruction online outside of class and moving "homework" into the classroom.

THE INVERSION



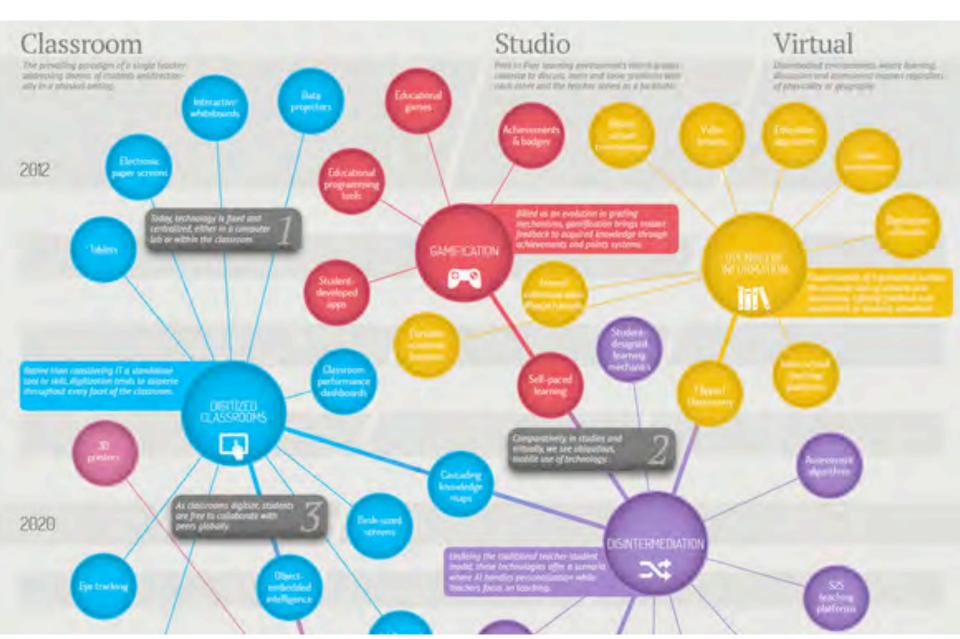


Technology
Prosumer =
Producing + Consumer

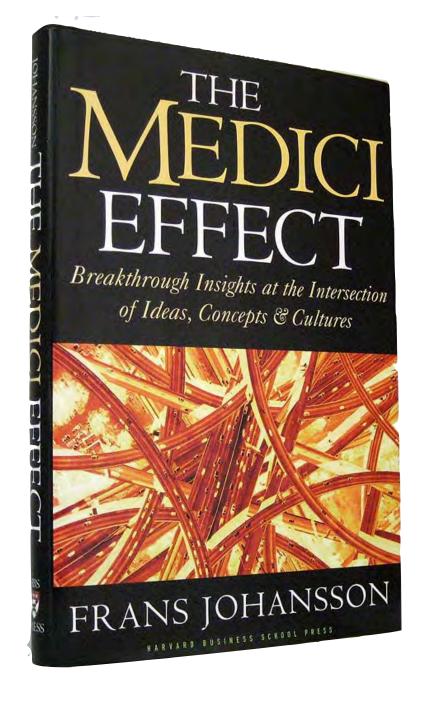
With the proliferation of digital networks the world over, the electronic marketplace has gone from empowering the consumer to supporting a global civic society. Power to the people.

Technology

Technology / Learning Environment Relationship





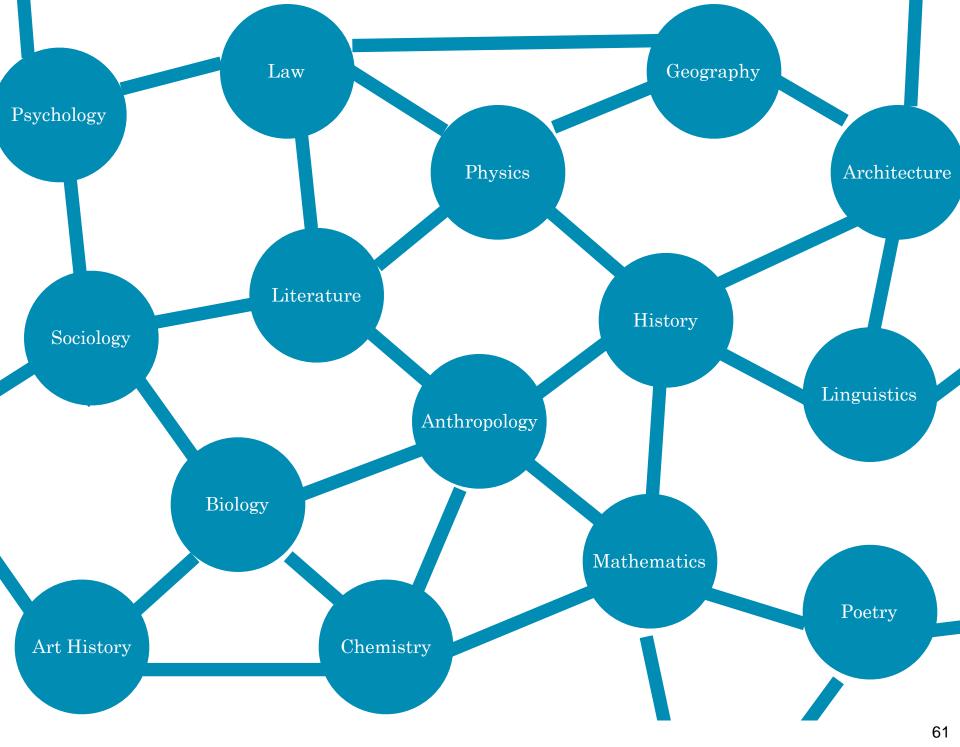


INTERSECTION

AND

INNOVATION

Diverse teams create far more ideas than homogenous teams





innovative time.





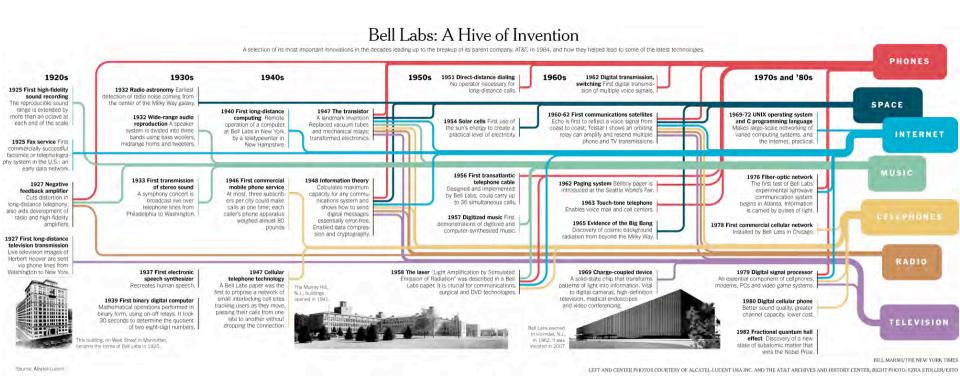


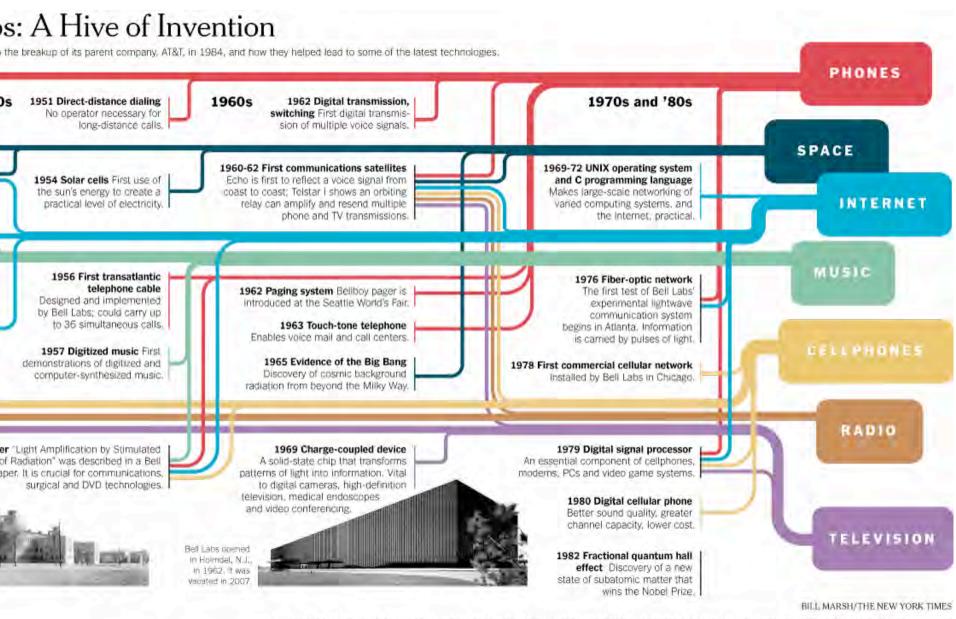












LEFT AND CENTER PHOTOS COURTESY OF ALCATEL-LUCENT USA INC. AND THE AT&T ARCHIVES AND HISTORY CENTER; RIGHT PHOTO: EZRA STOLLER/ESTO

$\begin{array}{c} \text{Interdisciplinary thinking for solving challenges} \\ Doctors\ and\ Nascar \end{array}$





Interdisciplinary thinking for solving challenges

Volvo and Locusts



Interdisciplinary thinking for solving challenges

Volvo and Locusts





A Culture of Sharing 3M Australia











8 IMMERSIVE LEARNINGSCAPE PATTERNS

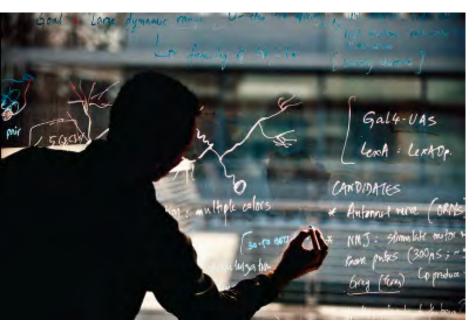
the learning revolution's impact on educational environments

Pattern 1: Sketch-Scape
Sharing Knowledge



Pattern 2: Transparency

Cross-Pollination of Ideas



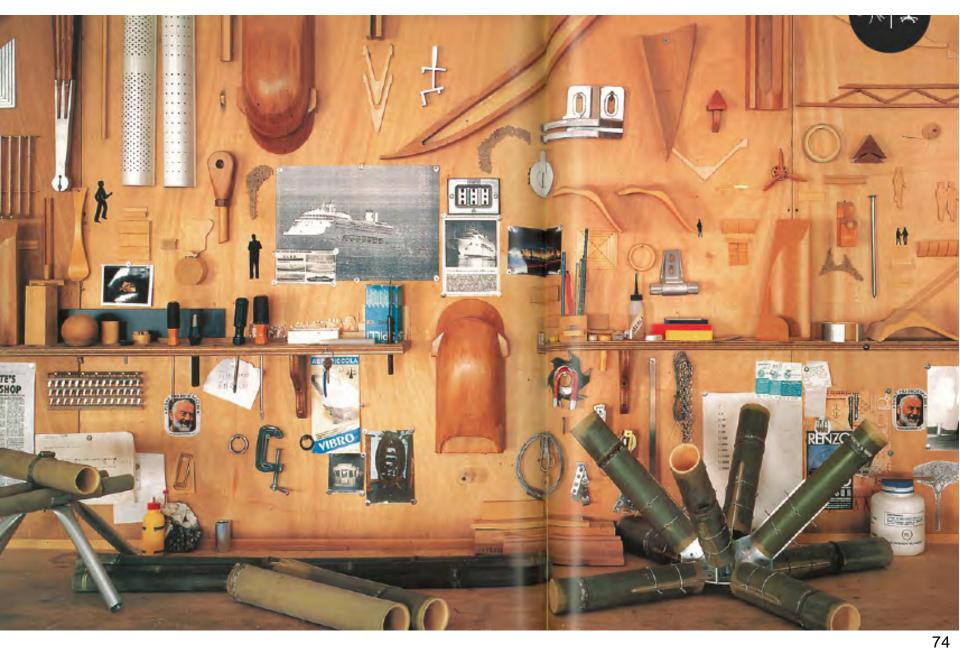




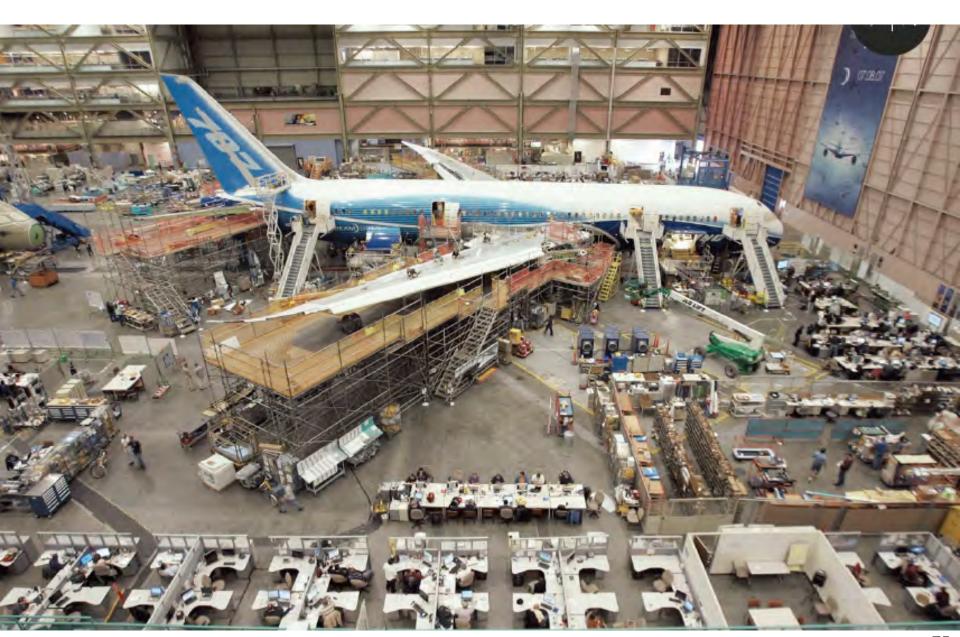


Pattern 3: Tinkering Space

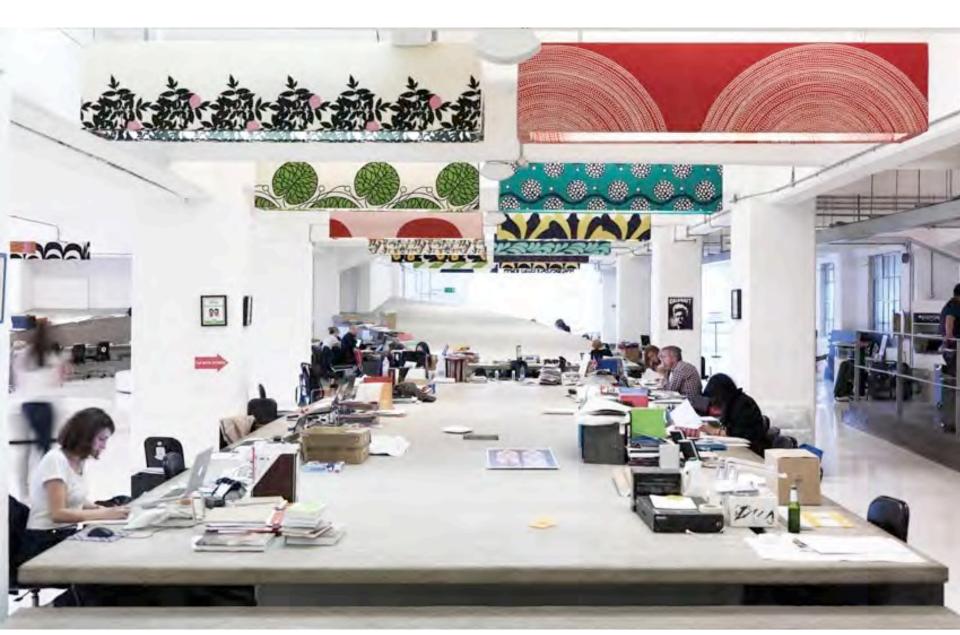
Creative Space



Pattern 4: Immersive-Scape
Relevance of Knowledge



Pattern 5: Unifying Space Collaboration



Pattern 6: Play-Scape

Fun-scape













Pattern 7: Adaptability

Flexibility







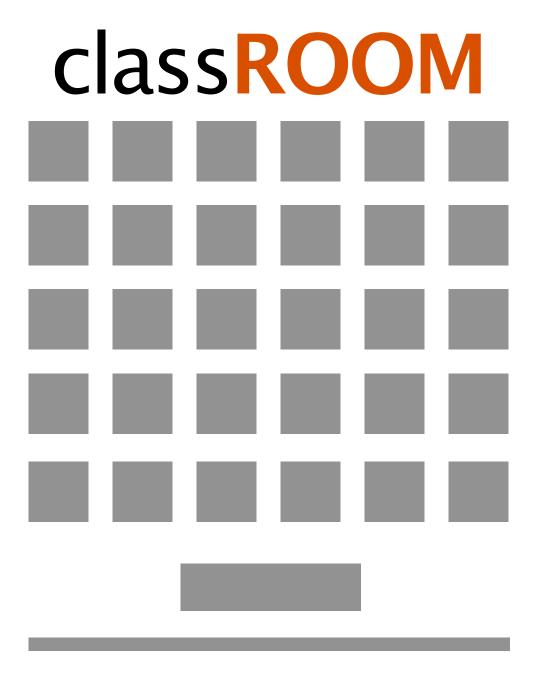


Pattern 8: Technology-infused Learning Active & Engaging Tools



methodologies of typologies of TEACHING vs. LEARNING

typologies of methodologies of **TEACHING LEARNING** VS.



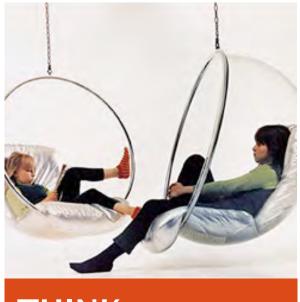
vs.learning SCAPE



typologies of LEARNING - space

typologies of

LEARNING-SPACE







CREATE







IMPART

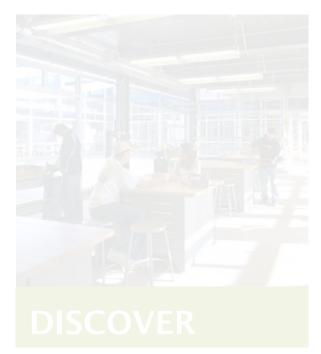


typologies of

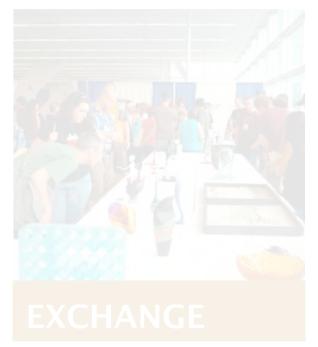
LEARNINGSPACE







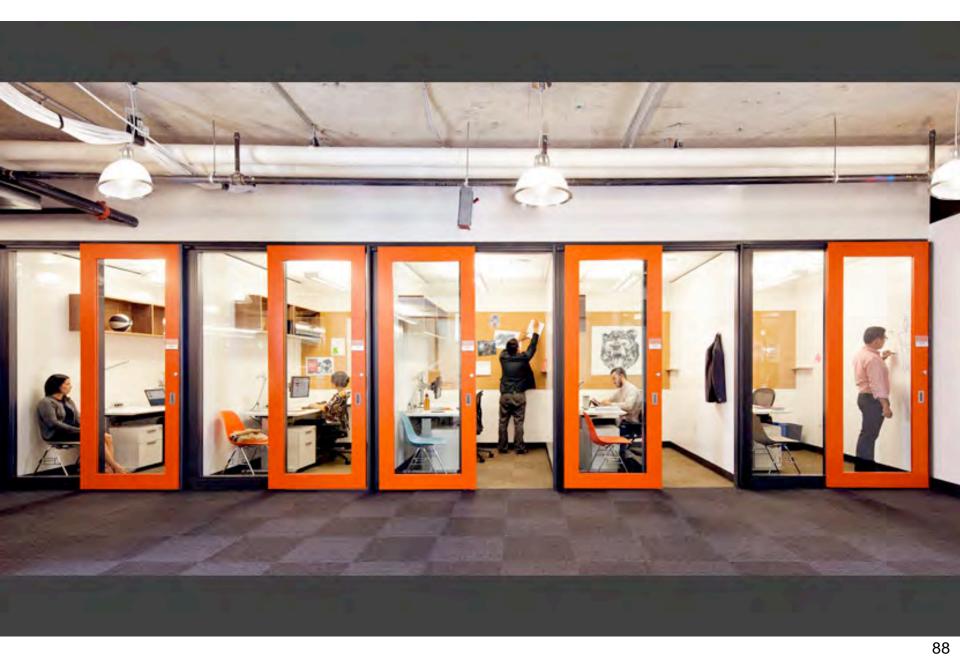




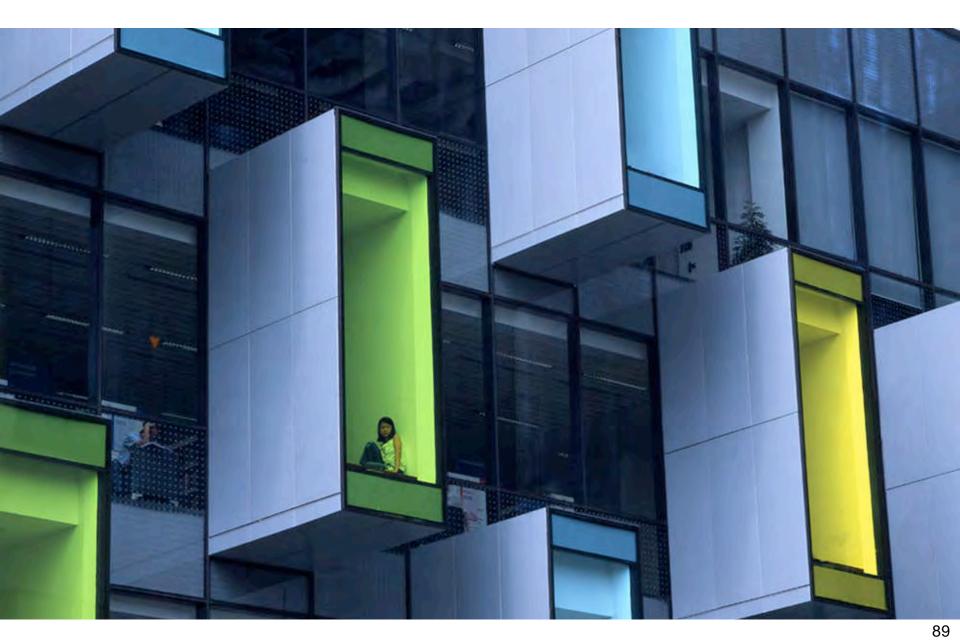
A Space that Supports a "Thinking Curriculum"



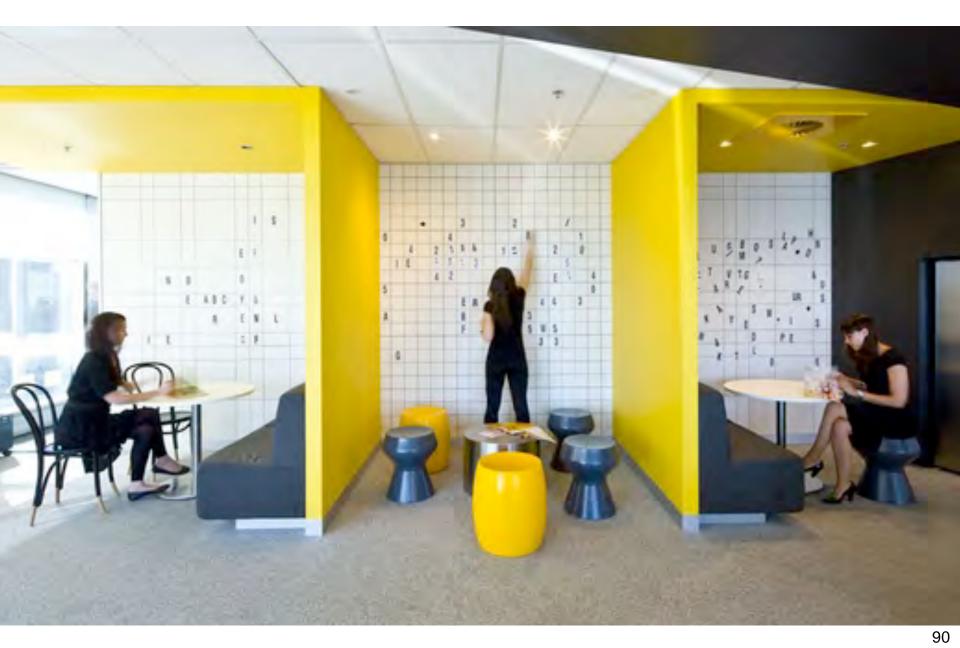
A Space for Research



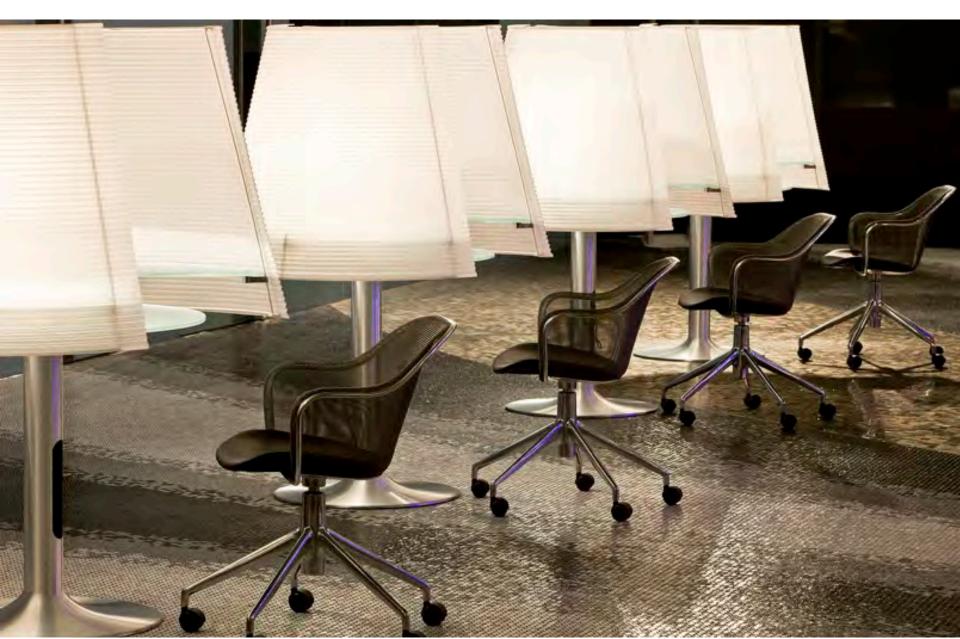
A Space for Contemplation



A Space for Critical Thinking



A Space for Assessment



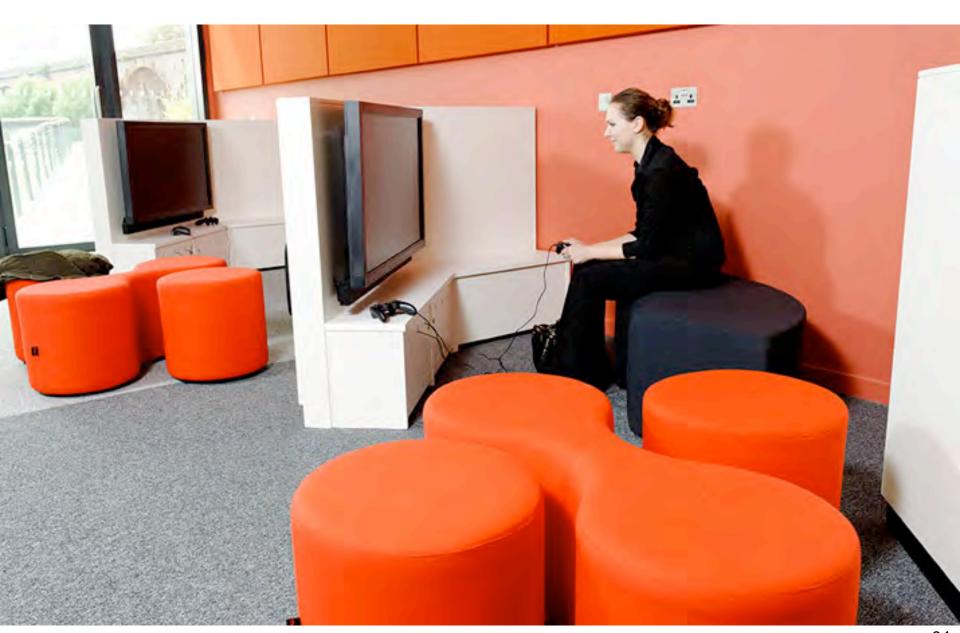
A Space for Organizing Your Thoughts



A Space for Visual and Audio Recording



A Space for Individual Distance Learning

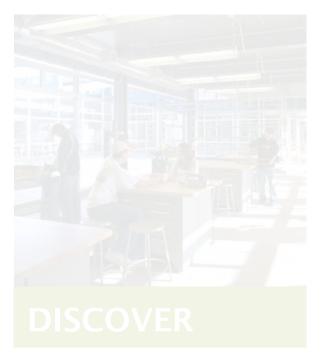


typologies of

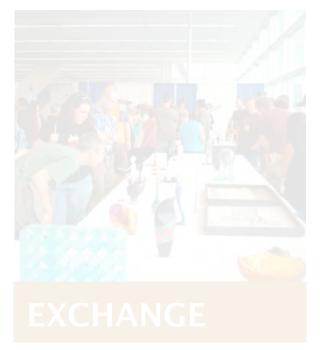
LEARNINGSPACE











A Space for Teamwork



A Space for Collaboration



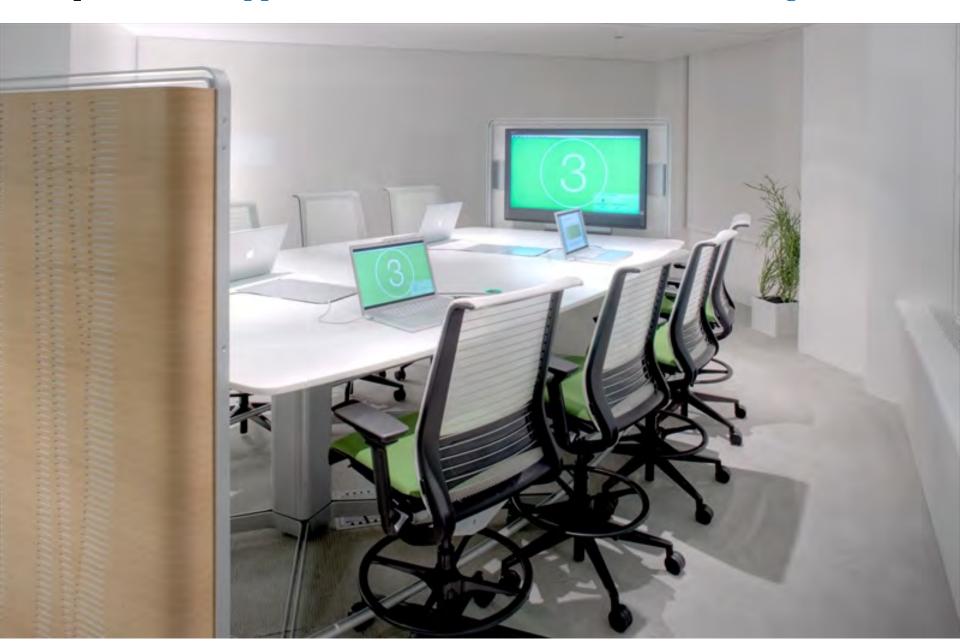
A Space that Supports Communication



A Space that Records Ideas



A Space that Supports Cross-Cultural Distance Learning

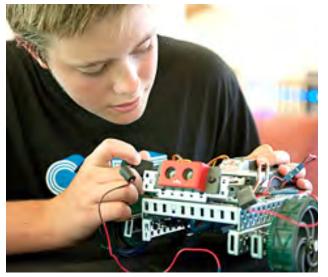


A Space that Supports STEM & STEAM Education











Case Study Sarasota's Classroom of Tomorrow

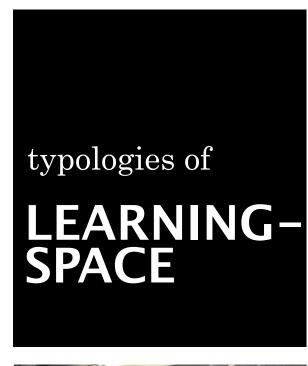


Case Study Sarasota's Classroom of Tomorrow

Content Purpose: Identify the structure and describe the physical characteristics of the Sun Language Purpose: Use the scientific terms corona, chromosphere, convection zone, radiation zone, core, sunspots, solar flares and prominences, to describe the structure of the Sun With your group members help create and label a model that identifies the Sun's Structure and properties

A Space that Supports Project-Based Learning



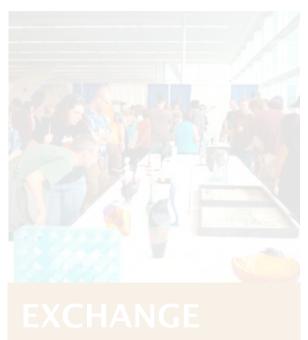






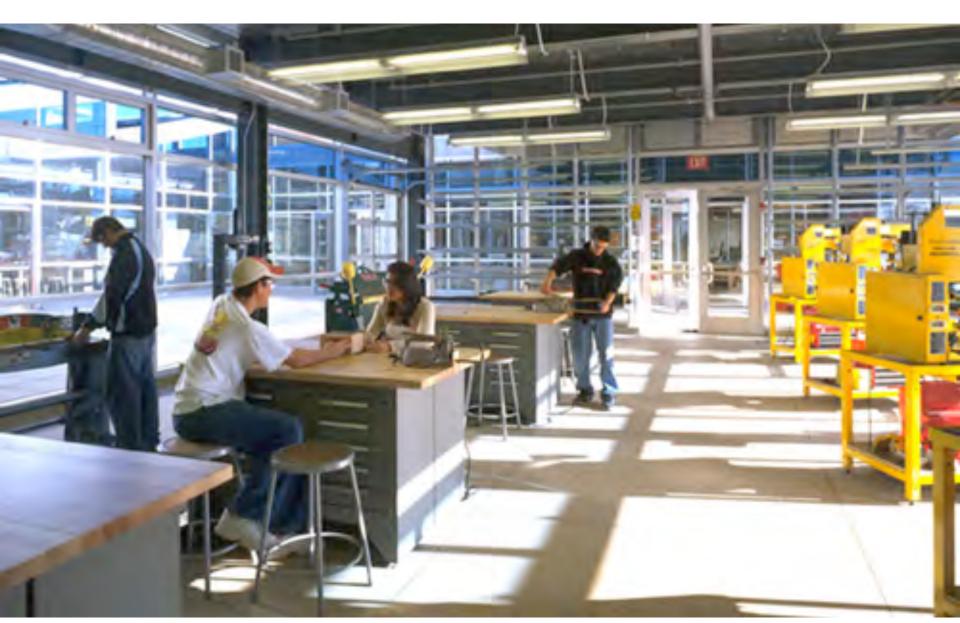






Discover-Scape

A Space for Hands On Investigative Learning



106

Discover-Scape

A Space for Tinkering



Discover-Scape

A Space for Production



Discover-Scape

A Space for Failure



Discover-Scape

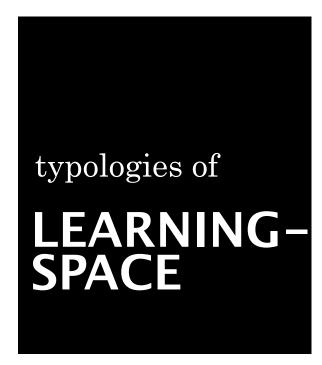
A Space for Idea Application



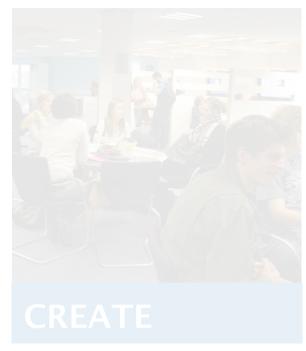
Discover-Scape

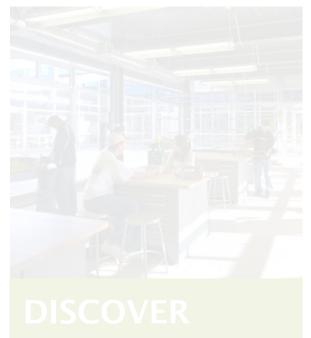
A Space for Specificity



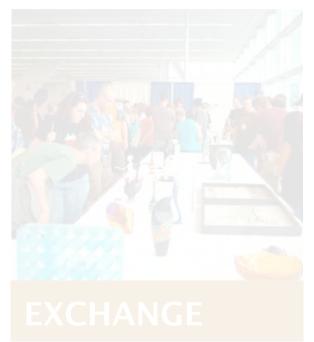








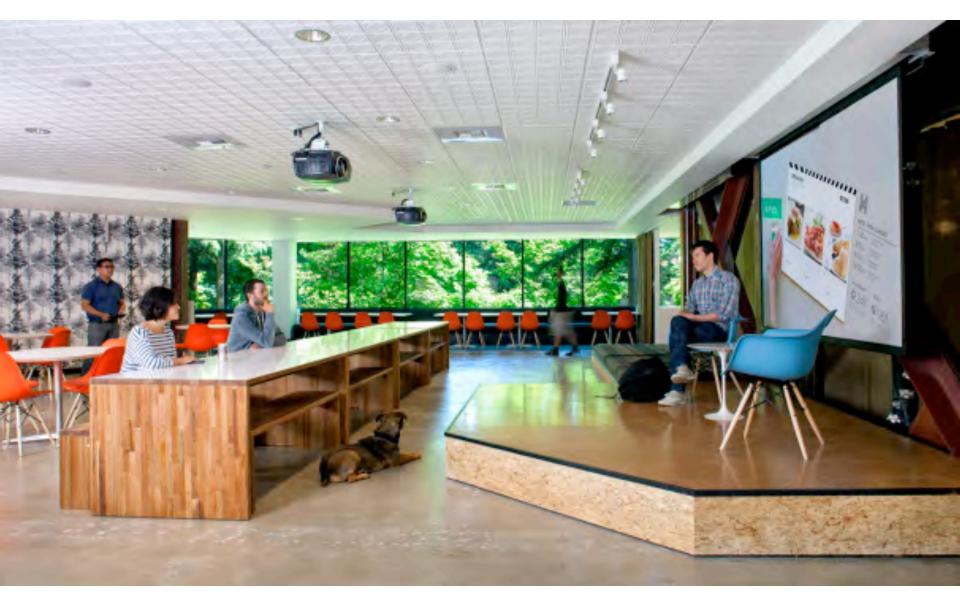




A Space for Sharing



A Space for Teaching

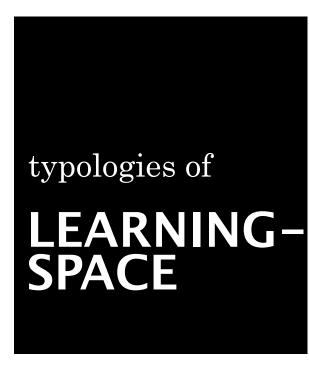


A Space for Quick Lessons



A Space for Distance Learning















A Space for Social Learning



A Space for Co-Teaching



A Space for Interactions



A Space for Informal Conversation



A Space for Serendipity



A Space for Exhibiting







CASE STUDY 1

Re-thinking the knowledge community

IMMERSIVE - MEDIUM SCALE - LOW IMPACT - APPLICABILITY TO ALL SCHOOLS

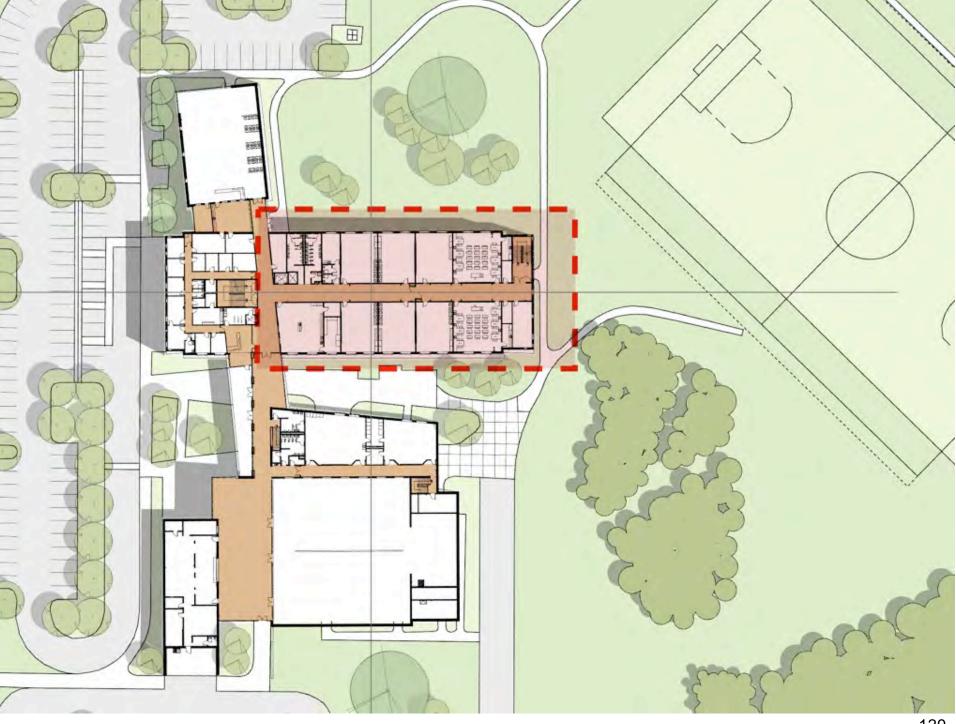
CASE STUDY 1

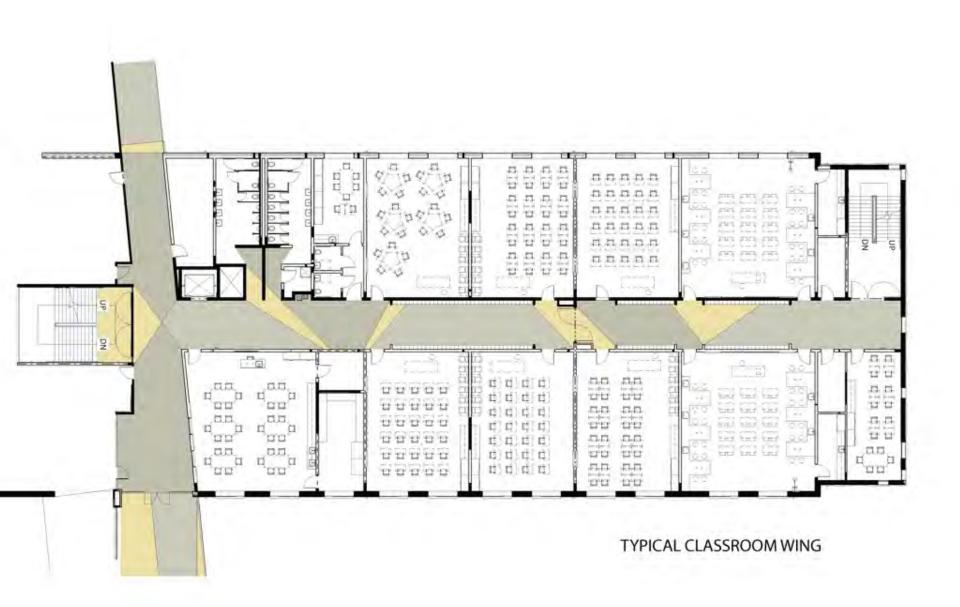
Re:Thinking The Classroom Wing



PILOT MOUNTAIN MIDDLE SCHOOL, Pilot Mountain, NC







Integrated Curriculum Model

ITEEA Recommendations



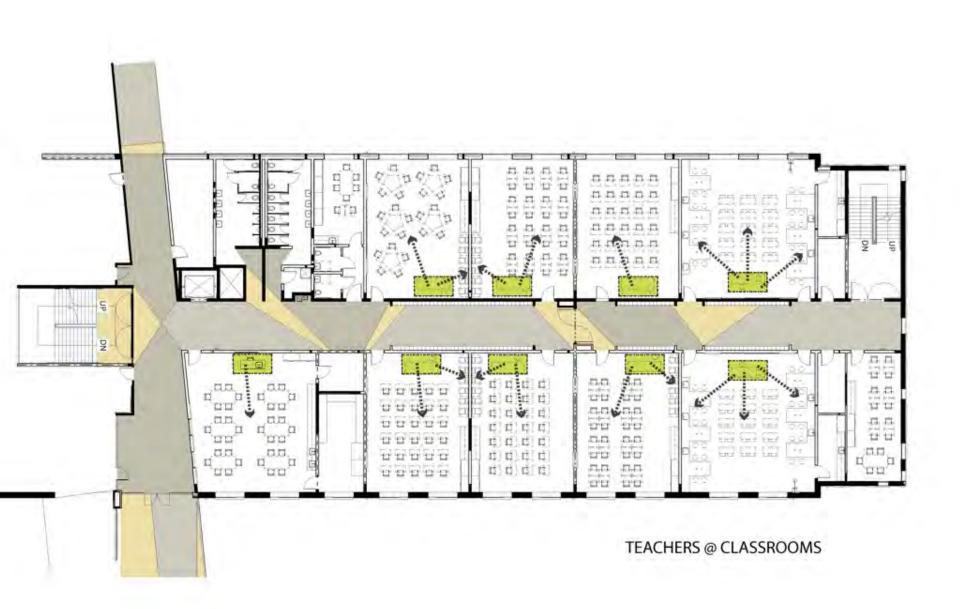
INTERNATIONAL TECHNOLOGY AND ENGINEERING EDUCATORS ASSOCIATION

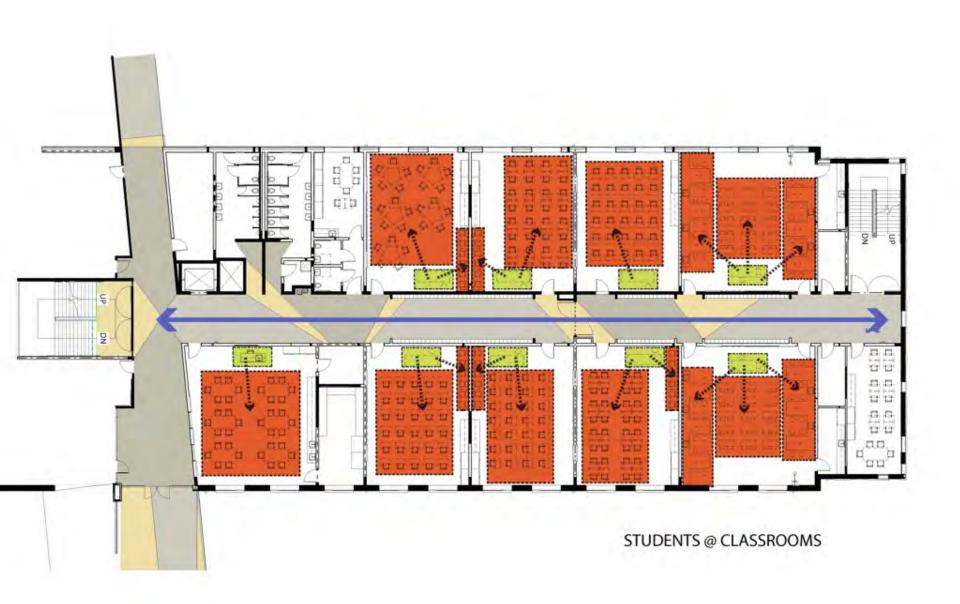
"The current mainstream school facility models restrict the teaching of science, math, technology and engineering subjects to individual rooms designed around isolated topics/disciplines.

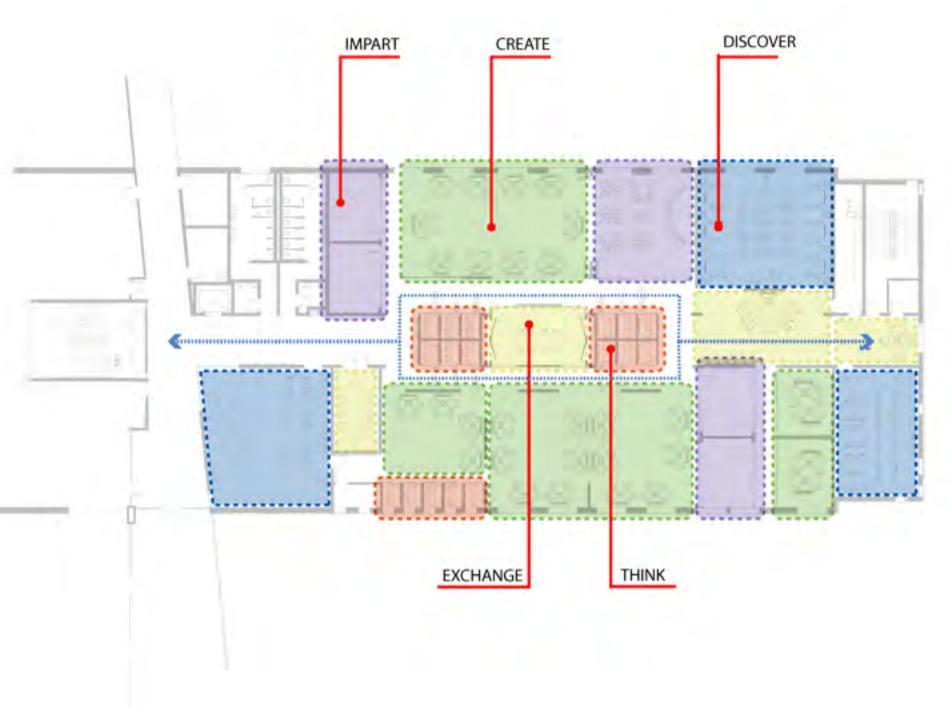
The National Governors Association report—"Innovation America: Building a Science, Technology, Engineering and Math Agenda", pg. 8 further describes it. "The existing core curriculum, which is divided into silos and focuses on traditional math and science, is often criticized as being irrelevant and boring to today's students.

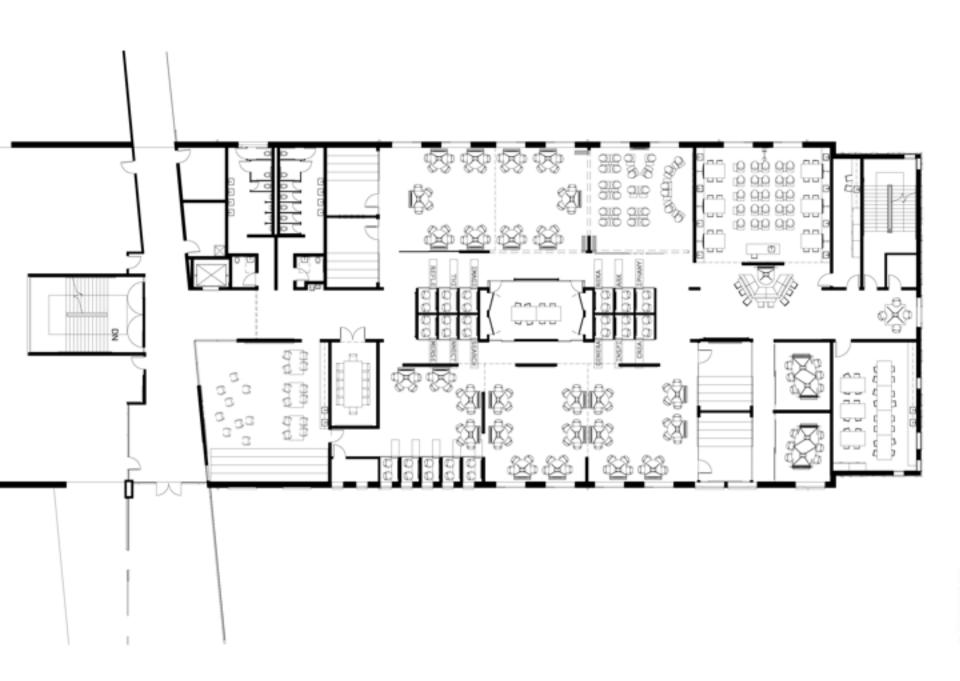
Studies report that the interest levels of American students, especially girls, in science begin to drop around middle school. As factors in turning off high numbers of students to STEM disciplines and professions, researchers point to the artificial separation in the curriculum of natural phenomenon into subjects, the focus on natural sciences and lack of attention to the human-made world of engineering and technology, and the disconnect of coursework from the lives of students."

ITEEA (International Technology and Engineering Educators Association) report, a May 3, 2011

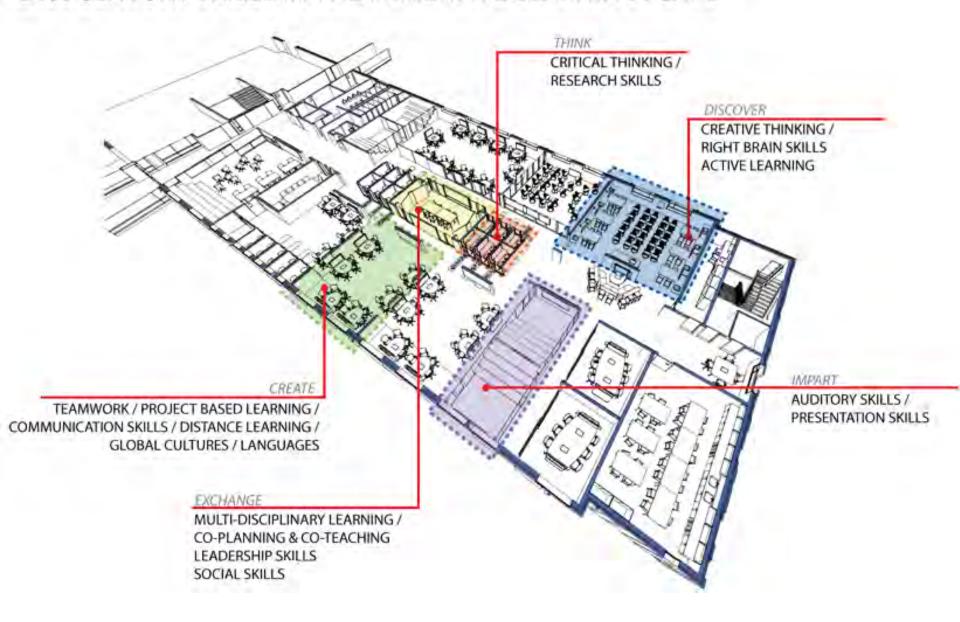


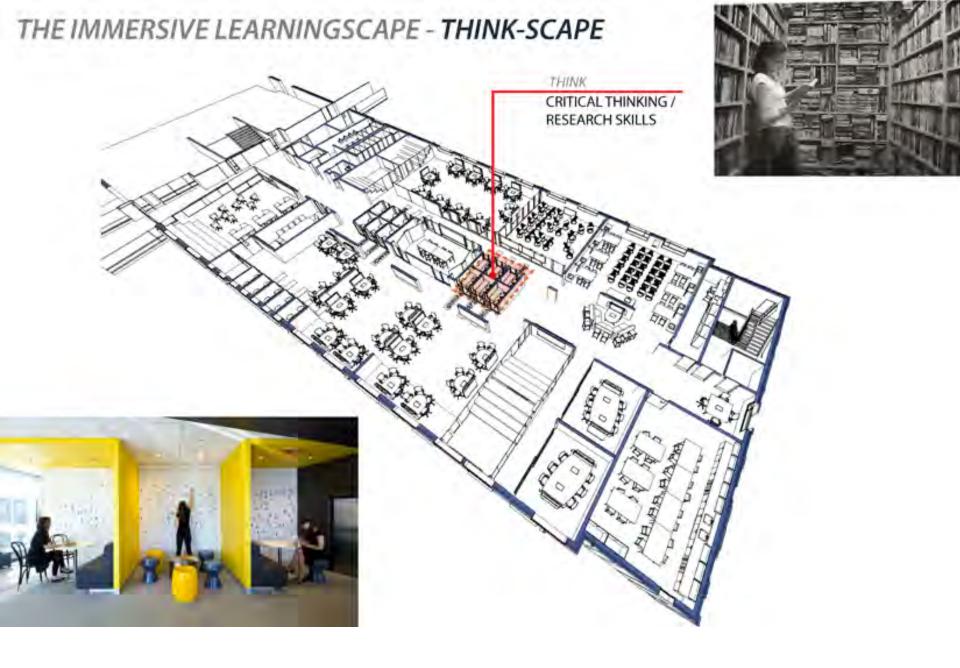




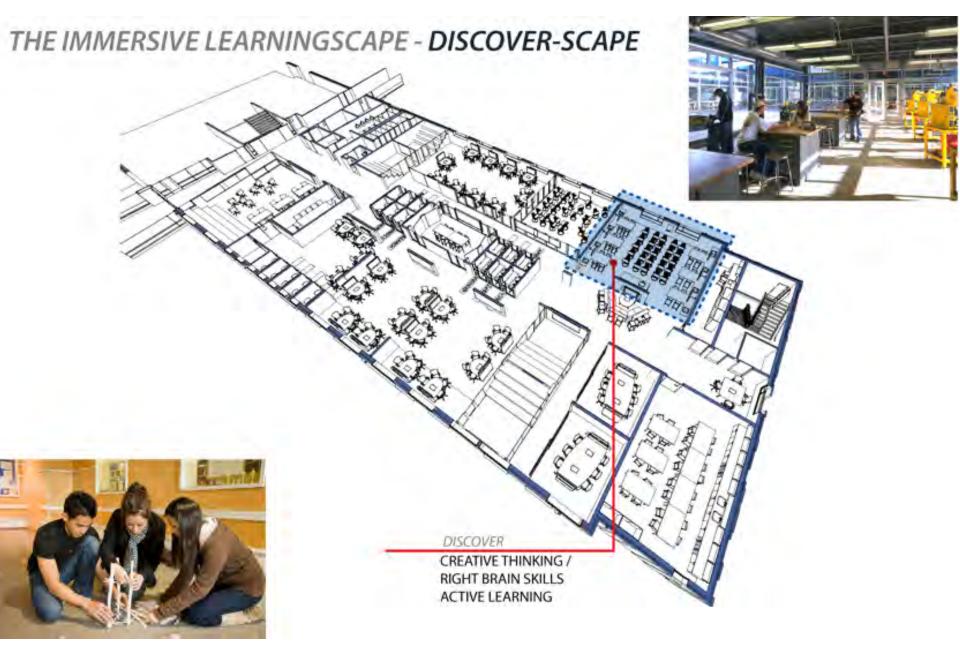


21st CENTURY SKILLS IN THE IMMERSIVE LEARNINGSCAPE

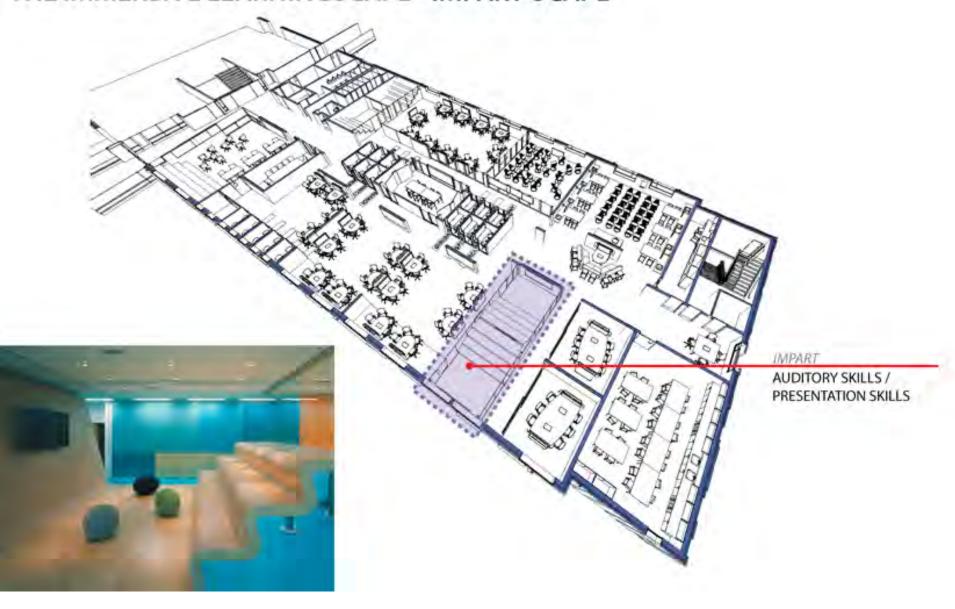








THE IMMERSIVE LEARNINGSCAPE - IMPART-SCAPE



THE IMMERSIVE LEARNINGSCAPE - EXCHANGE-SCAPE



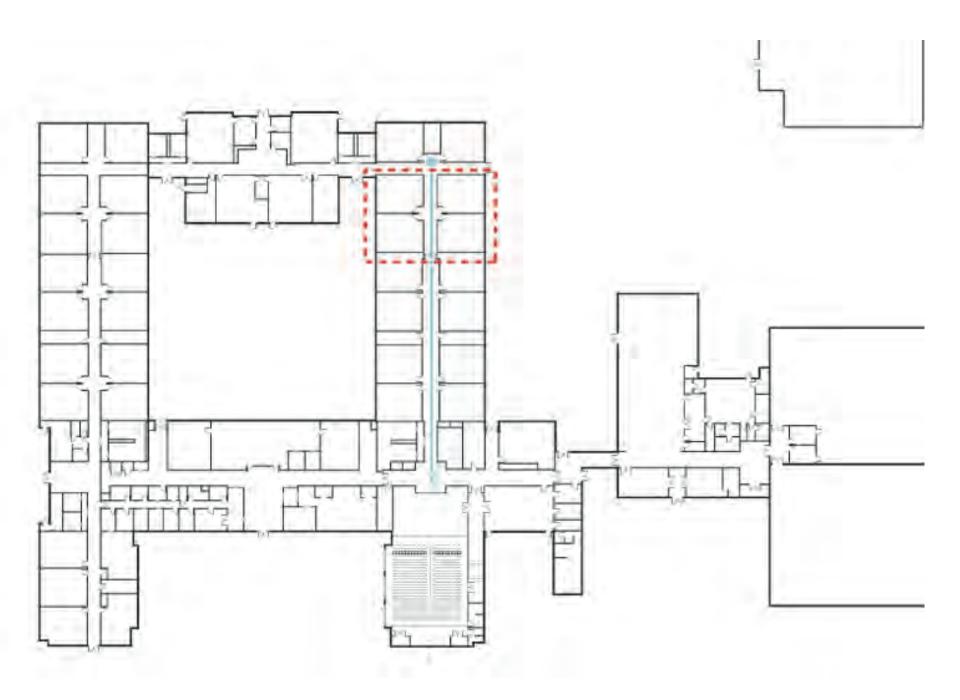


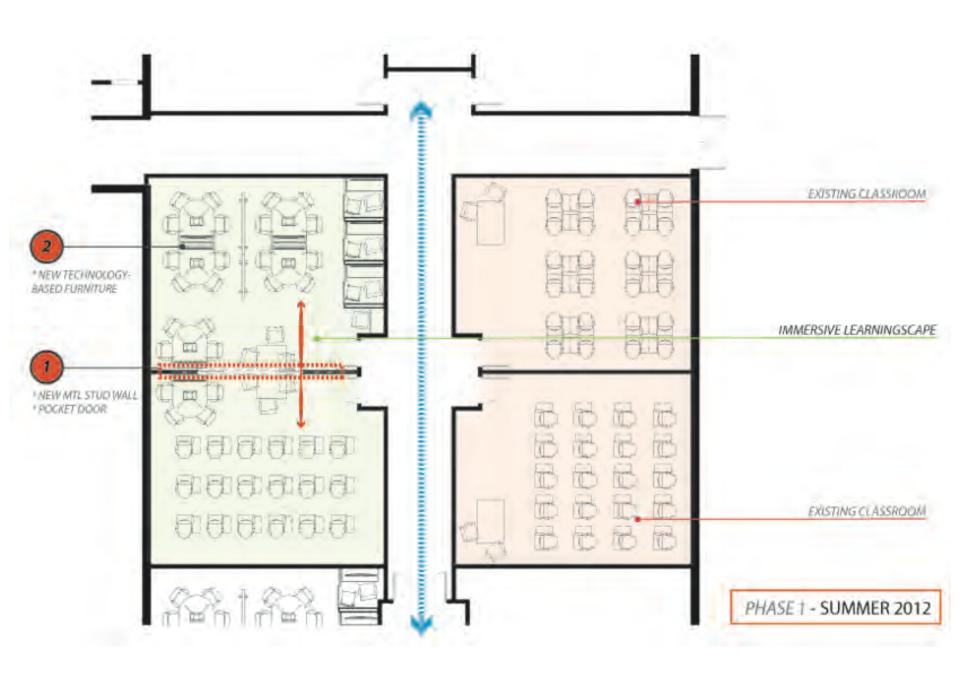
CASE STUDY 2

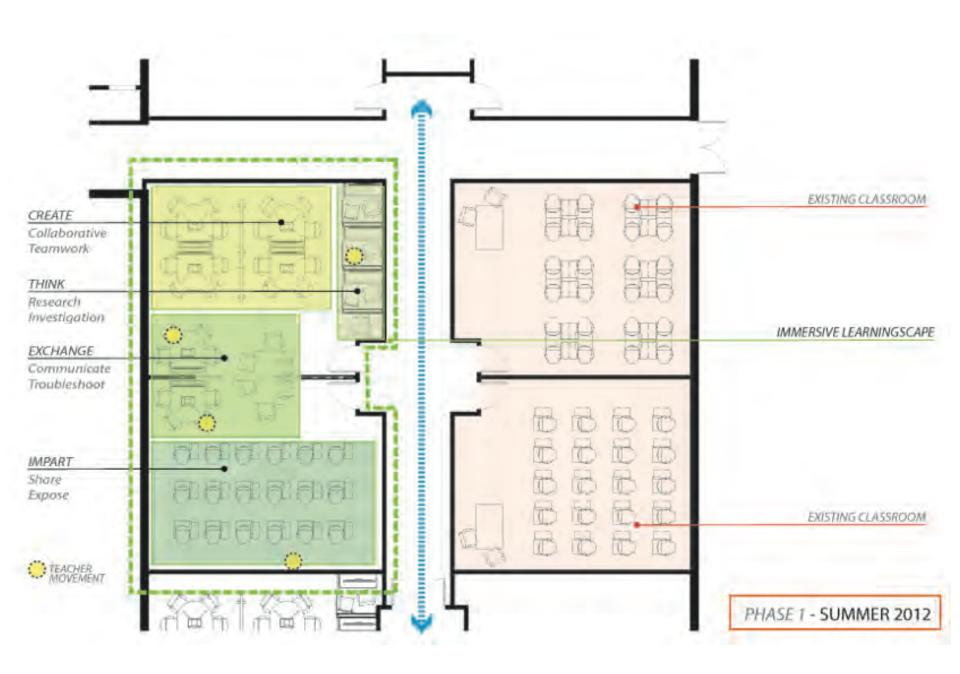
Cannon School

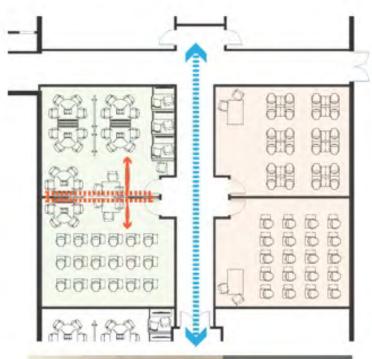
Immersive LearningScape Incremental Immersive Change

IMMERSIVE - SMALL SCALE - LOW IMPACT - APPLICABILITY TO ALL SCHOOLS





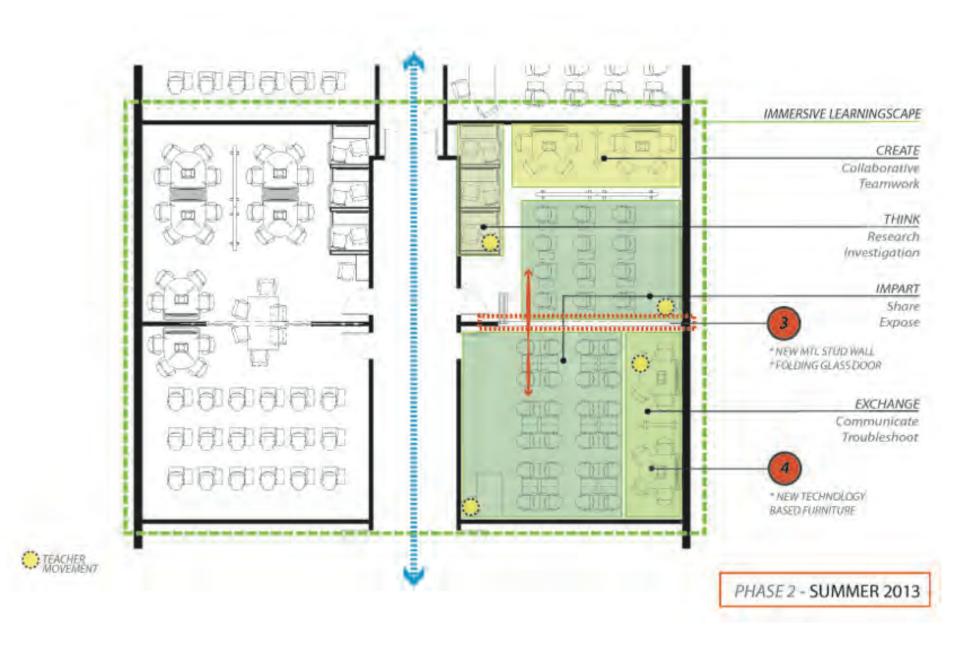


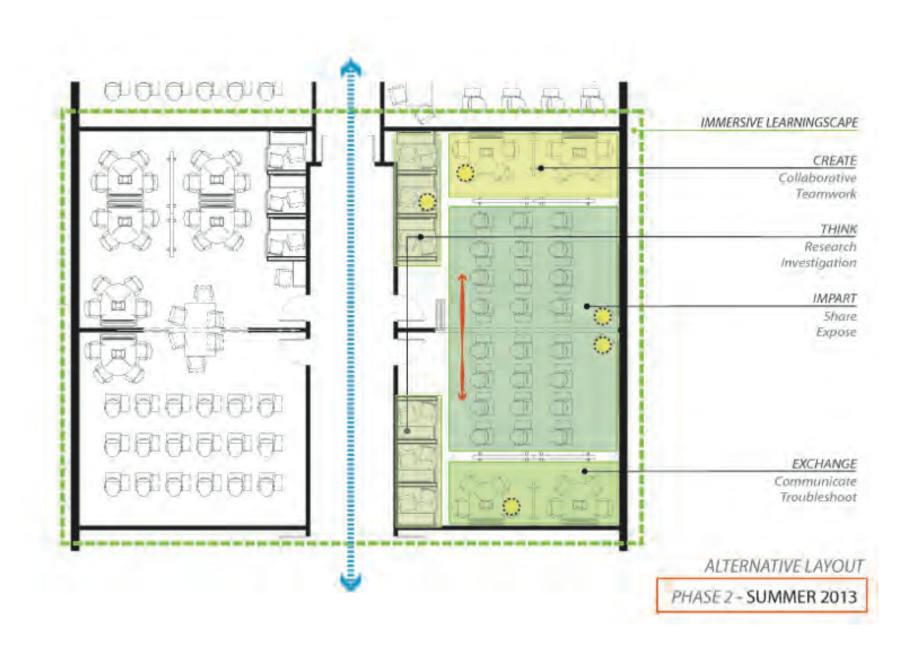


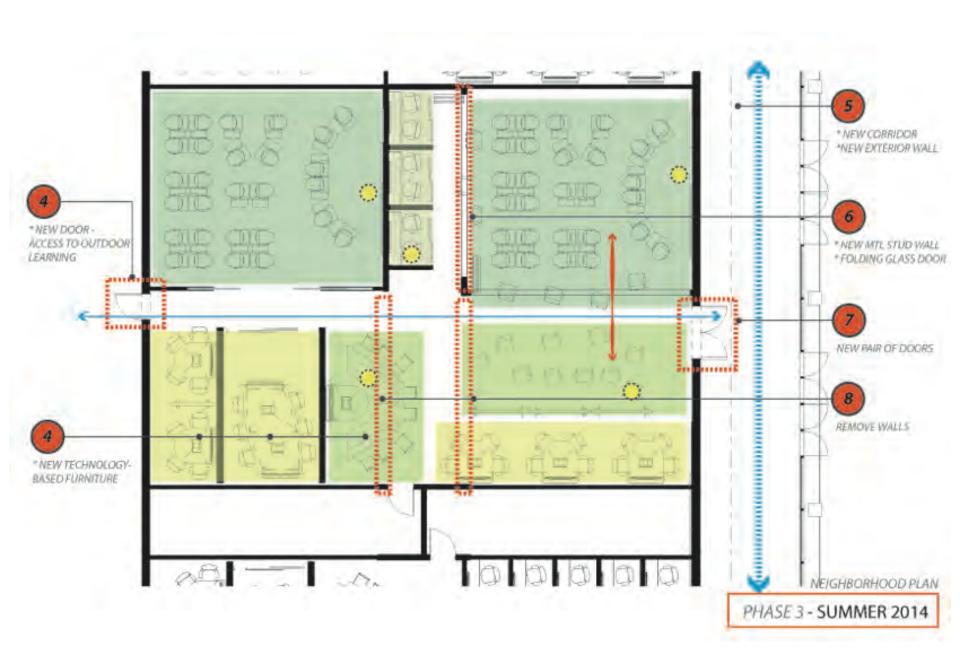




































CASE STUDY 3

Greenville STEM Middle School

Immersive LearningScape The Building as a Teaching Tool

ITEEA Recommendations



INTERNATIONAL TECHNOLOGY AND ENGINEERING EDUCATORS ASSOCIATION

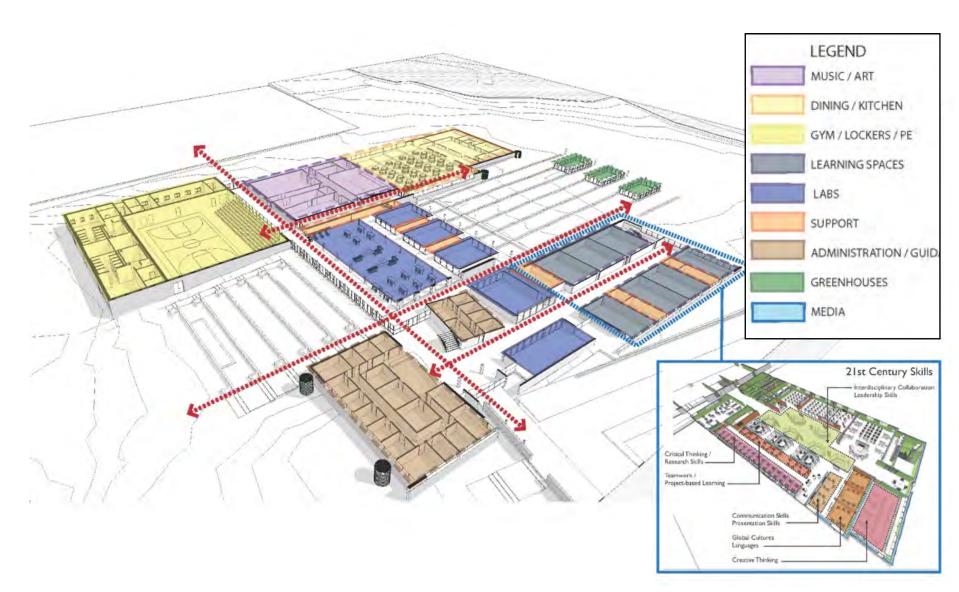
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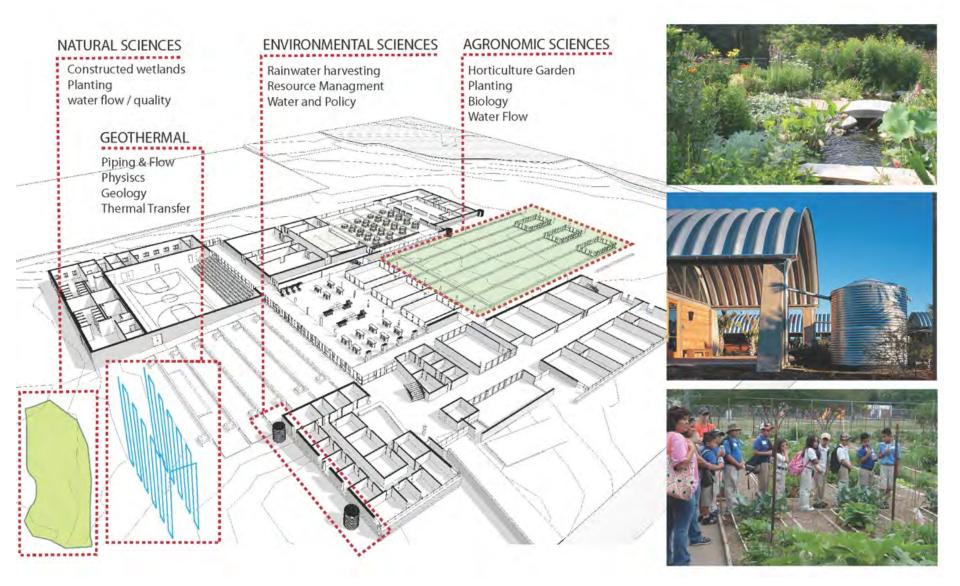
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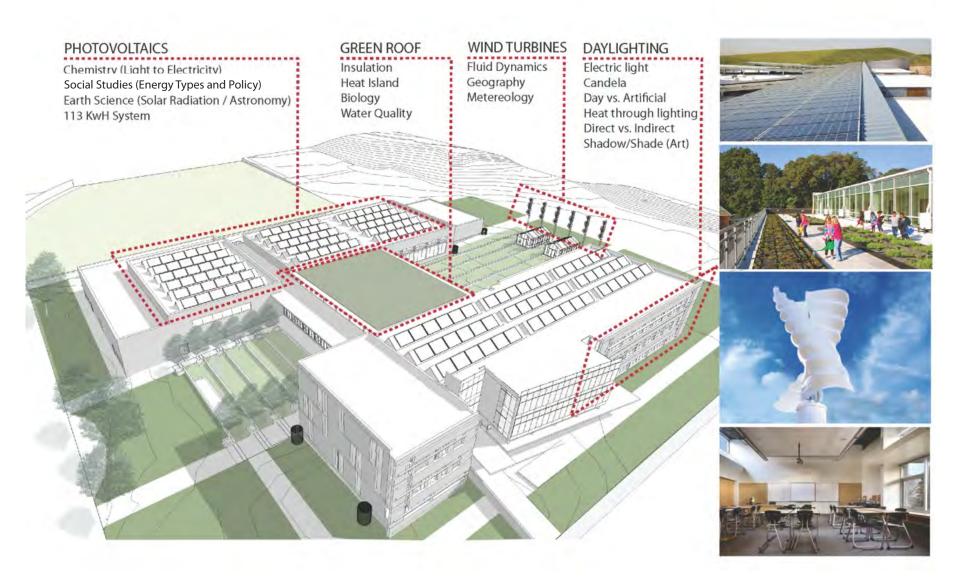
Floor Plans Level 1



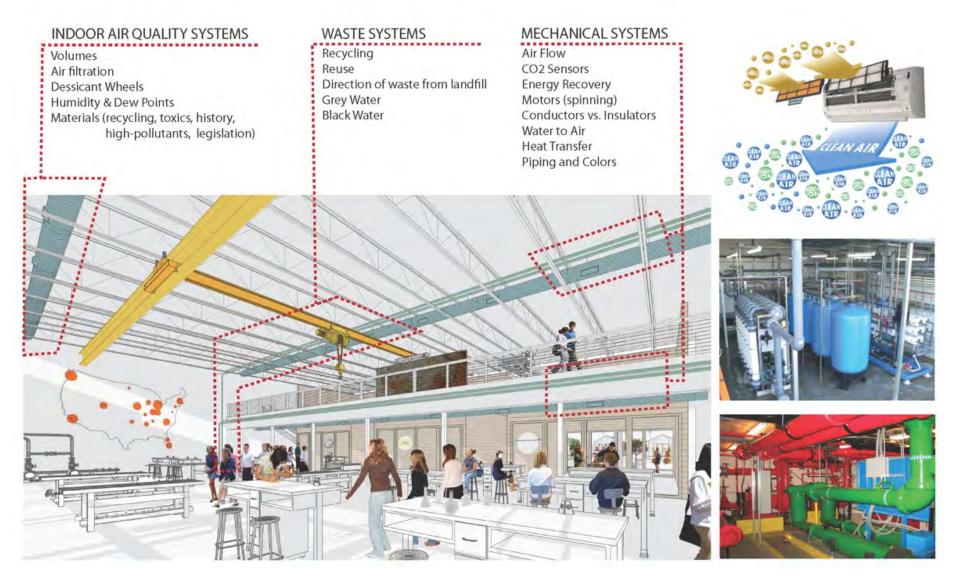
Building as Teaching Tool



Building as Teaching Tool

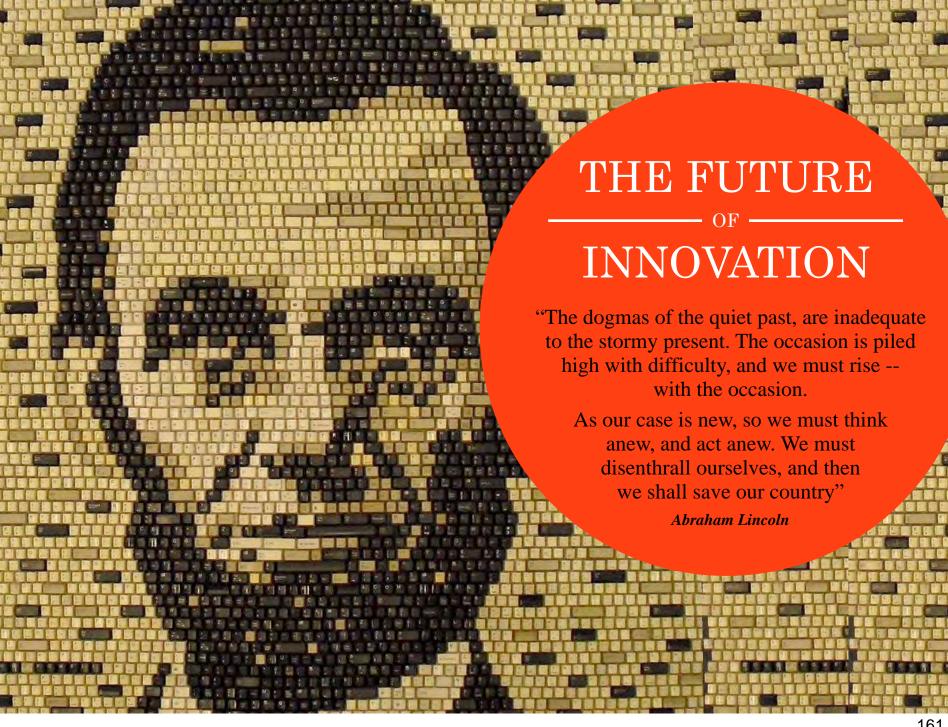


Building as Teaching Tool



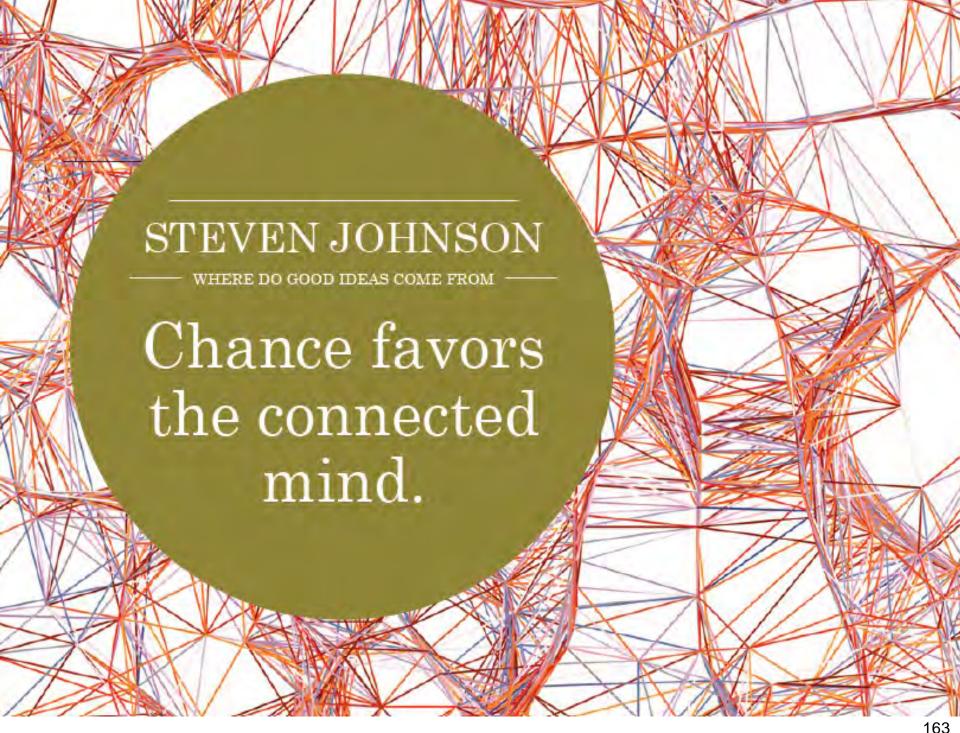
Rendering at Exploratorium





Educate for Disenthrallment





PRESENTED BY

Tomas Jimenez-Eliaeson

Little, Design Director teliaeson@littleonline.com



















