







HOLLIS + MILLER ARCHITECTS







## **CEFPI 2013**

Designing New and Innovative Educational Environments with Integrated Technology

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Designing New and Innovative Educational Environments with Integrated Technology

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September 21, 2013



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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

# Ol presenters



John Brown, AIA, DBIA

Partner Hollis + Miller Architects 25 Years Experience







### ol session description:

- Educating today's students goes beyond the standard walk and talk of the traditional classroom.
- Environments that nurture and promote collaboration with integration of technology are becoming standard; critical for students emerging from the academy.







## Ol session description:

#### video





### session description:

- The design of facilities within the academy must promote and foster the concepts of interdisciplinary collaboration, teaming and technology integration.
- A well designed, functional facilities help generate students who are ready to enter the university or industry at a competitive level upon graduation.









Educating today's students goes beyond the standard walk and talk of the traditional classroom.



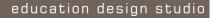






We need to rethink the way we are looking at the educational built environment to change the paradigm.





## students educating today's student:

#### CREATE LIFELONG LEARNERS

Create lifelong learners with a passion for self-improvement who will be intensely engaged in their own education through both personal challenges and successes.

The school should provide inspiring spaces that promote exploration and creativity, preparing every student for the future.

#### STABLE, STRUCTURE BASED ENVIRONMENT

Create a stable, structure based environment while sowing the seeds of excitement and creativity that will generate motivation to continue their educational path.

The school should include spaces that allow interaction and promote trust between varying sized groups of students, staff & administrators.

#### DEVELOPMENTALLY APPROPRIATE SPACES

Create developmentally appropriate spaces for the uniqueness of a middle school student.

The school should provide the tools necessary to engage and challenge the quickly developing mind of a middle school student.



#### PILLAR OF THE COMMUNITY

Make the school an engaging pillar of the community that extends beyond the classroom hours.

The school should be zoned for after hours use to engage all members of the community.

#### SAFE & SECURE LEARNING ENVIRONMENT

Create a safe & secure learning environment where students can focus on exploration and development of their academic & social skills.

The school should provide physical as well as psychological support for both students & staff.

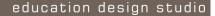
#### NURTURE THE 'WHOLE CHILD'

Nurture the 'whole child' by creating a support system that reaches far beyond the classroom walls to provide everyday essentials vital to a student's personal success.

The school should include a variety of spaces that are adaptable to each student's learning style.





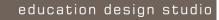




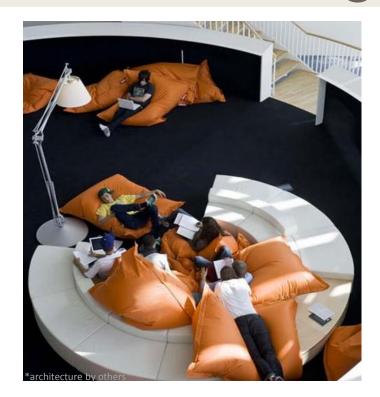


#### **Teacher Education:**

Educators need to understand how today's students learn, and teach toward those methods.



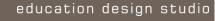






Peer to Peer / Social Learning











**Imagination + Energy** 







## students educating today's student:

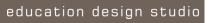






Spaces within a school need to facilitate collaboration by redesigning the classroom to reduce and replace the traditional forward facing model.







## 03 exterior environments:











#### O3 environments:



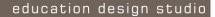


#### **ENVIORNMENTS:**

- That nurture
- Promote collaboration / Innovation
- Integrate technology









#### 03 The space environments:



Differentiated Instruction:

Provide students with a different means to acquire content







#### environments:



#### **Project Based Learning**

- In-Depth Rigorous Project
- Facilitate Learning
- Assess Student Competence





#### space environments:





#### Interaction is taking on new forms with the use of technology:

- Collaboration between peer groups
- Keep students plugged in not tuned out







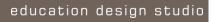
## 04 The building design of facilities:



#### Promote and Foster:

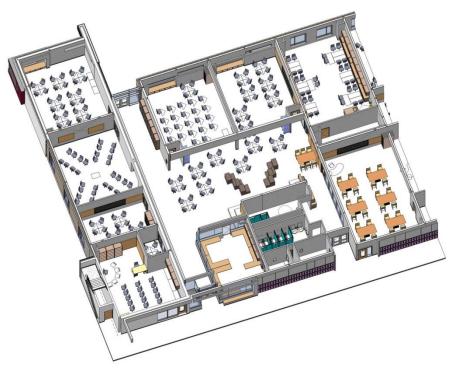
- Collaboration
- Teaming
- Technology







## 04 The building design of facilities:



Diverse Space for all Learning Styles





### O4 design of facilities:



#### **Students Need To:**

- Move
- Hands on materials
- Express themselves in lots of ways
- Be Individuals



## 04 The building design of facilities:



#### **Flexibility**



### design of facilities:

#### **Furniture Systems:**

- Durability
- Adaptability

#### **Spaces for Students:**

- Open
- Flexible

#### **Learning Dynamics**

- Setting up environments for learning
- Classroom management
- Improve student time-on-task





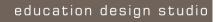


## 04 The building design of facilities:











### 04 The building design of facilities:

#### **Understand the environment:**

Must Be Adaptable to incorporate requirements from:

- Students
- Facility
- Curriculum









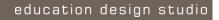




#### video

\*architecture by hollis + miller

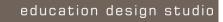








Students must be ready to enter university or industry at a competitive level.





### bechnology facilities + technology integration





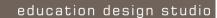




#### Creating environments that meet the needs of all students:

- **Economics**
- Cultural Identity
- Globalization
- Aesthetic Experience
- Thinking Laterally







### 105 The fechnology integration



Engaged students who learn valuable skills go on to be productive adults.









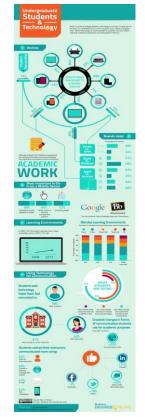
#### **Digital Natives:**

- Flipping Classrooms
- Technology
- Less Lecture
- More Interaction
- Faculty becomes the coach











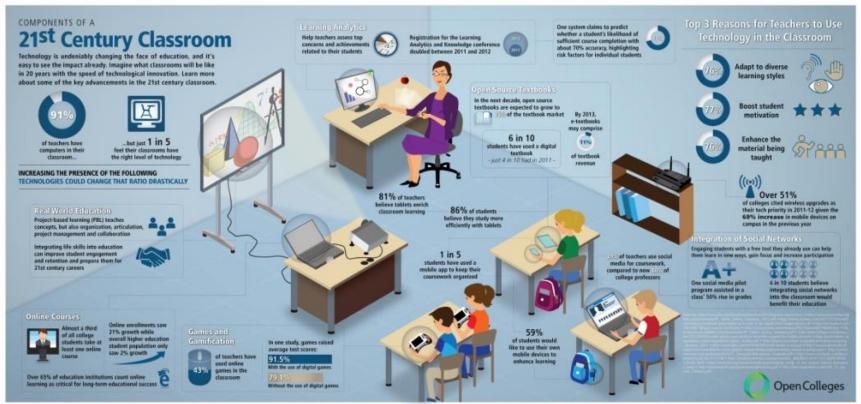


- Plugged in Not Tuned Out
- Personal Devices
- BYOD / BYOT(ech)









http://www.k12educationtechnology.com/2012/07/23/91-teachers-computer-access-infographic/











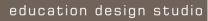
#### Technology is used for:

- Testing / Grading
- Course Material
- Communication

#### **Devices for Academic** Success:

- Tables
- **Smartphones**
- Laptops
- E-Readers



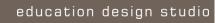




# Architects + Specialists working together to provide technology based solutions for:

- Classrooms
- Auditoriums
- Learning Labs and more





#### **HD** Capture

Video recording for classroom and lecture halls





#### CaptureLiveHD™, the only complete HD lecture capture solution

- >> Captures full-motion HD video
- >> Simple to setup and use by presenters
- >> Provides ability to stream lectures
- >> Lowest cost of ownership of any product in its category
- >> Picture-in-picture feature provides ability to view presentation and presenter

#### Capture the Experience for Yourself

With the lowest cost of ownership for any capture solution, and with no on-going maintenance costs, CaptureLiveHD records lectures and meetings in flawless HD video and audio. You can then easily upload lectures to your network server for online delivery. No special training or extra effort is required.

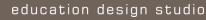
Designed for simple out-of-the-box setup in a classroom, CaptureLiveHD simply integrates with existing AV presentation systems and networks. Capturing content from the lecture half, training lab, or boardroom, presenters and instructors can easily capture and

#### Visit capture.crestron.com

Cectron declaims any proprietary interest in the marks and names of others \$20012 Creation Electronics, Inc.









#### WHO USES SOUND MASKING?

#### INDUSTRIES

Finance (GLBA)
Healthoare (HIPAA and HCAHPS)
Insurance

Government
Education (FERPA
Consulting
House of worship





Open office environments
Private offices
Call centers
Executive/HR offices
Counseling offices
Waiting rooms
Patient rooms
Liberies

Secured facilities



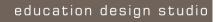


#### **Sound Masking Product**

Increases speech intelligibility and articulation









# For Facilities To Succeed with Technology:

- It has to work and work well on several levels
- Must be a balance of what the student expects in a cyber world and be accessible to faculty who are not always digital natives.

Objective

arning

## 6 objectives learning objectives:

- Learn how space needs to facilitate collaboration inside the walls by redesigning the classroom to eliminate the traditional forward facing lecture model.
- Understand how interaction is taking on new forms with the introduction of technology. Interaction between peers, professionals and resources of all types is facilitated by getting students, and keeping students, plugged in.
- Understand that environments must be adaptable in order to incorporate specific requirements from students, faculty and curriculum.
- Learn that in order for facilities to succeed with the integration of technology, it has to work, and work well on several levels. A delicate balance between what the students are expecting as they grow up in an ever increasing cyber world, while being accessible to faculty that are just coming up to speed and trying to keep up.

AIA CEU Course 2013





### O/ education design studio

#### This concludes The American Institute of Architects **Continuing Education Systems Course**

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# 07<sub>The questions</sub> education design studio







# Thank You!

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