21st century learning and the 21st century university

ron hoffart
mark mathiasen
leonard rodrigues
the K-12 experience
Where we’ve been ... the 19th C. industrial revolution model
from: “We’ve always done it that way”
to: Education Vision, Goals & Objectives
Personalized Learning
Core Competencies

• Collaboration
• Creativity
• Social responsibility
• Healthy living
• Global and cultural understanding
• Communication
• Innovation
• Critical thinking and problem solving
Applying 21st C. Learning Skills to Facility Planning

a balance between traditional and 21st C. learning outcomes

Teacher-directed
Direct Instruction
Knowledge
Content
Basic Skills
Theory
Curriculum
Individual
Classroom
Summative Assessments
Learning for School

Learner-centered
Collaborative Instruction
Skills
Process
Higher-order Thinking
Practice
Life Skills
Group
Community
Formative Evaluations
Learning for Life

A New Balance
environments for learning in the 21st century
Differentiated Learning Styles

Design to support personalized learning and differentiated instruction requires an understanding of unique learning styles.
Dr. Frank Locker’s School Transformation and Development Map: Where are we?
STUDENTS TAKE NOTES, READ, TAKE TESTS
FREQUENT STUDENT EXHIBITIONS
PROJECT-BASED LEARNING
INTERNSHIPS + SERVICE LEARNING IN COMMUNITY PLACEMENTS
STUDENTS COLLABORATE THROUGH COOPERATIVE LEARNING
STUDENTS WORKING TOGETHER IS CHEATING

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Facilities

**SEPARATE INDIVIDUAL CLASSROOMS, NOT CONNECTED**

**FLEXIBLE WALLS BETWEEN A FEW ROOMS, HARDLY OPEN**

**LINKED CLASSROOMS FOR INTEGRATED HUMANITIES**

**BREAKOUT SPACES BETWEEN ADJACENT CLASSROOMS**

**SUITES OF VARIED SPACES FOR MULTIPLE TEACHERS**

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**Learning Community**

- Dunbar’s # - Rule of 150
- 80 – 90 LC group size
- Collaborative teaching & learning opportunities
- Separate space/timetable for teacher collaboration
- Stud. presentations to LC
- Student display in LC
- Support for differentiated teaching and learning
the post-secondary experience
Always on, connected
Active learners
Social learners
Visual learners
Fearless with Technology
Immediate access to media
Full access to information
Global thinkers
Visual multi-sensory

“Look at me” desires
Consumer orientation towards their educational experiences
Everything on-line
Want to collaborate
Want to use technology to express their creativity
Prefer practical applications, authentic experiences, and hands on involvement
Want to learn, not be taught
One of the first place that felt the change was the traditional library - from quiet and low key – to active, busy and – yes – even noisy
breakout spaces
all spaces at a university or college – be they formal or informal - have become spaces for collaboration, team project building, quiet study, social space, or break-out space

Space is **routinely appropriated** by students in many (sometimes ingenious) ways to **serve** their purposes
the intensity of active use throughout a campus has increased dramatically

students are networked with others of similar interest – constantly testing new interests, limits and boundaries

it is the network and a people knowing how to take maximum advantage of that network that is at the core of innovation
team working areas
breakout spaces
ubiquitous social spaces of varied size
active not passive

does this sound familiar?
we are seeing a continuum in education from kindergarten to PhD and beyond life long

it is about connection and engagement

it is about networks and cities

it is about how schools and campuses work to create the conditions for innovation

it is about a global reach
$Y(t) = Y_0 N(t)^{\beta}$
Luis M. A. Bettencourt, *The Origins of Scaling in Cities*, Santa Fe Institute, July 1, 2012
why is this true?

we are measuring network behaviour – we are measuring ourselves

Cities are the breeding ground of innovation and creativity and our schools, colleges and universities are very important “condensation nuclei” of these networks
grounding our children in the skills exhibited by the tenets of 21st century education and its seamless connection beyond K-12 to a life time of exploration, creativity, and innovation is not only important – it is **VITAL** if the great problems of the world are to be solved.