

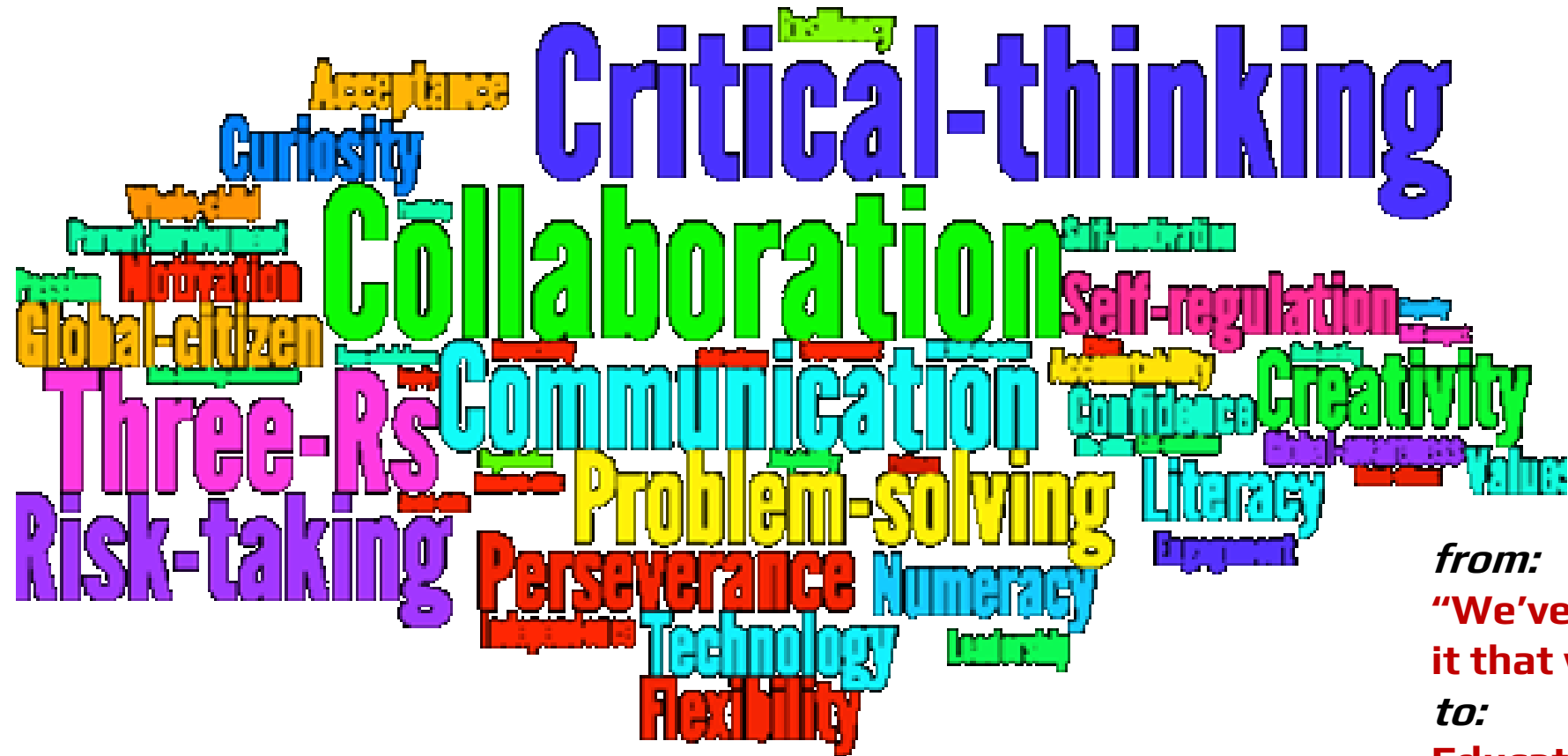
21st century learning and the 21st century university

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”

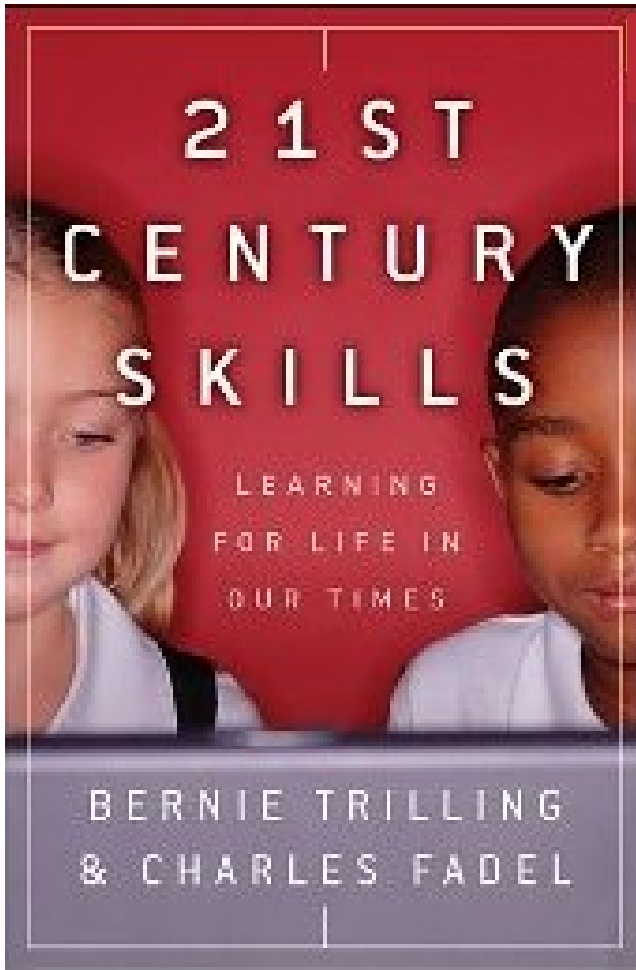
to:

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

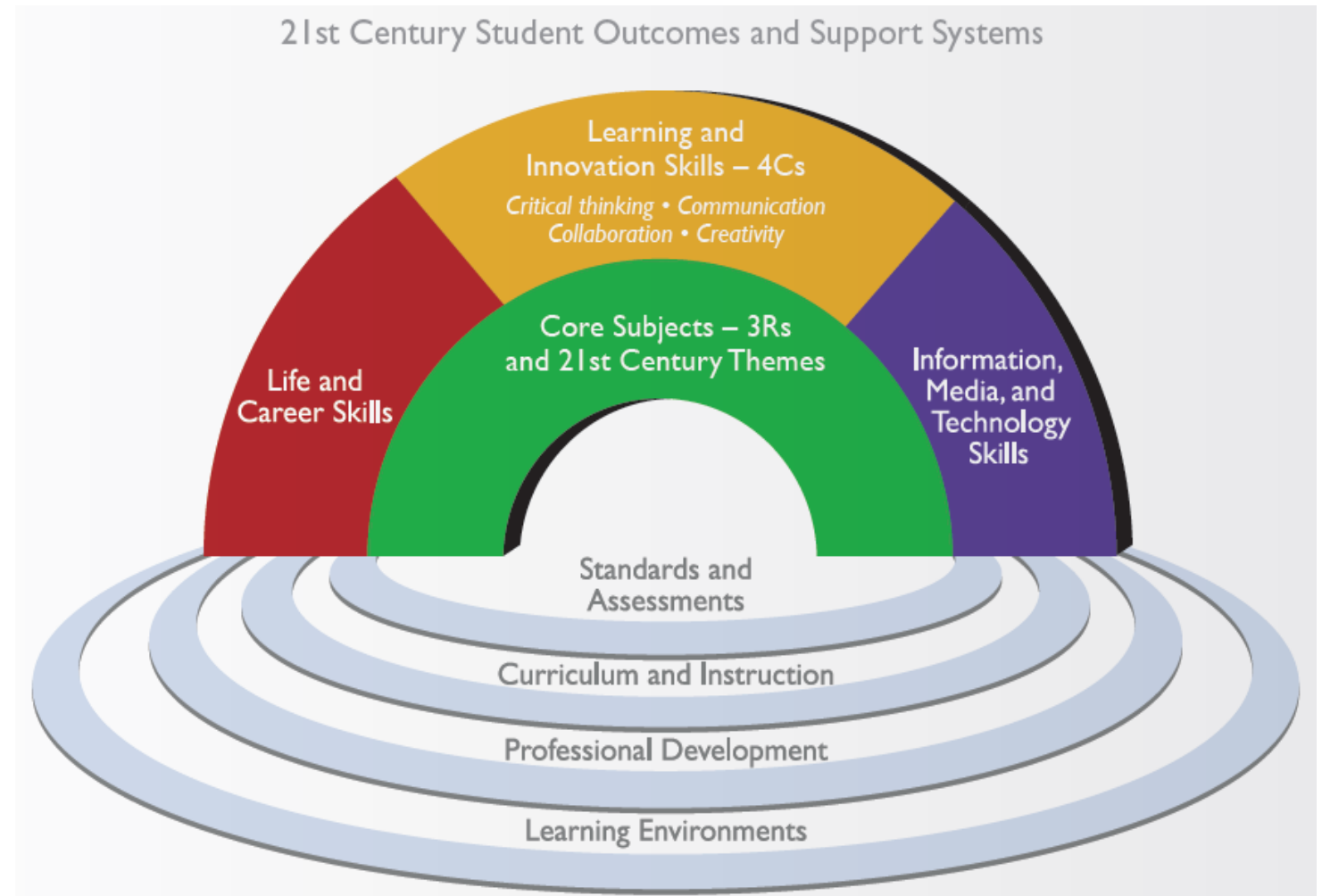
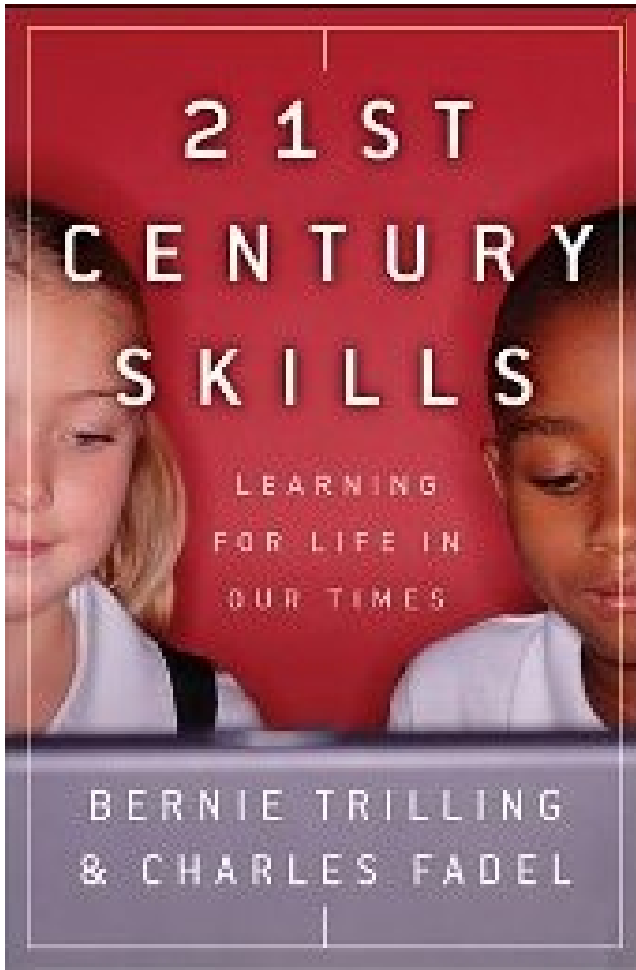
Learner-centered
Collaborative Instruction
Skills
Process
Higher-order Thinking
Practice
Life Skills
Group
Community
Formative Evaluations
Learning for Life

A New



Balance

environments for learning in the 21st century

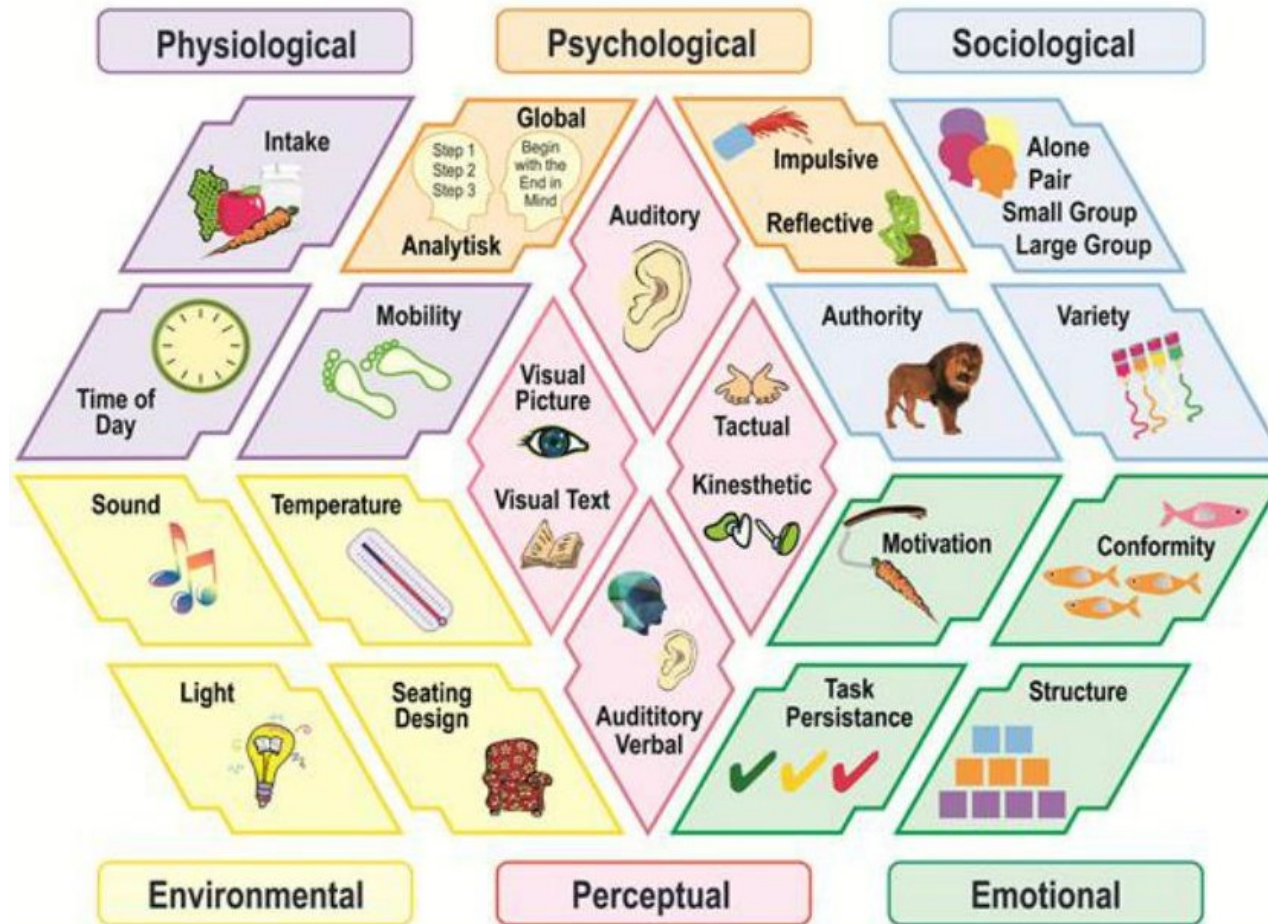


Dunn & Dunn Learning Styles Framework: Building Excellence

28 Elements – 65% biological, 35% Behavioral

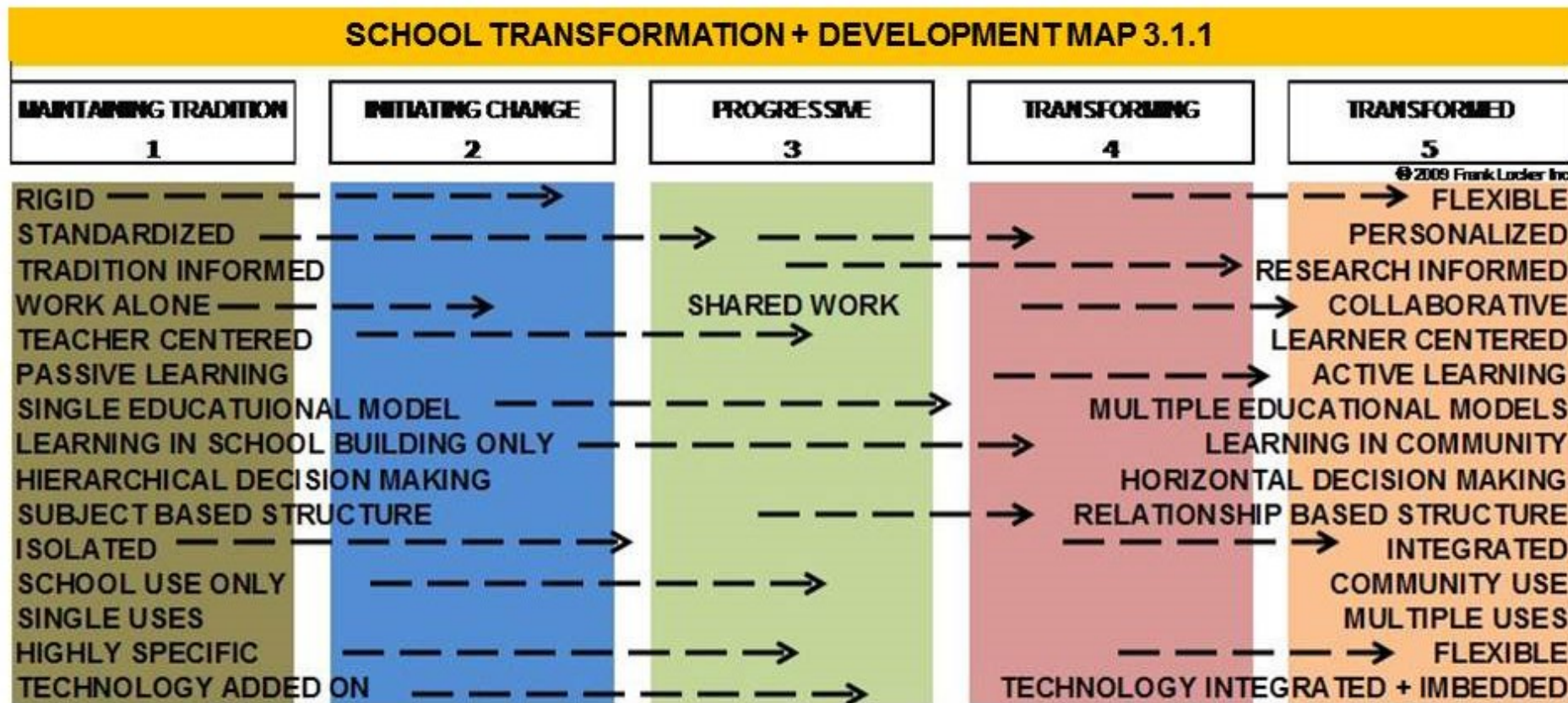
Differentiated Learning Styles

Design to support *personalized learning* and *differentiated instruction* requires an understanding of unique learning styles



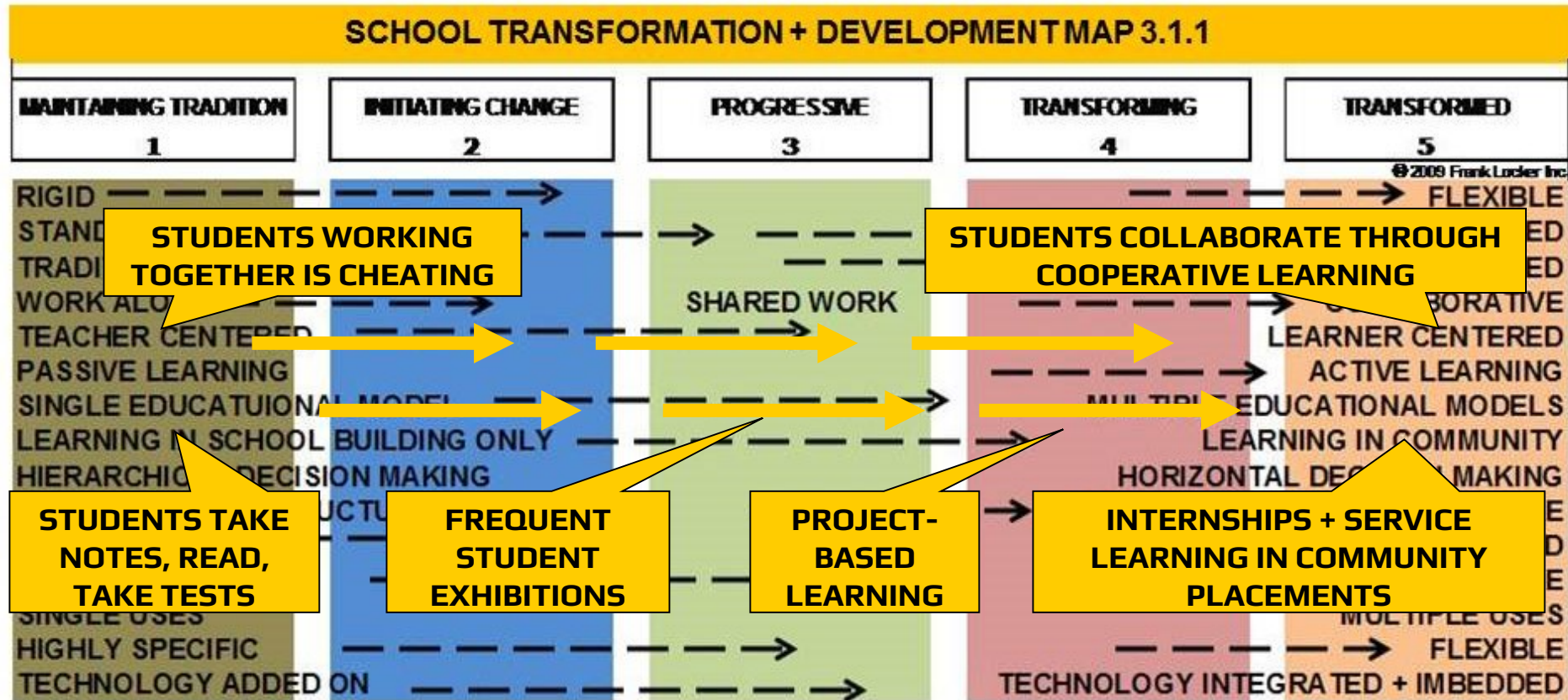
graphic design @ Susan Rundle, used with permission

Dr. Frank Locker's School Transformation and Development Map: Where are we?



@ Fank Locker Inc., used with permission

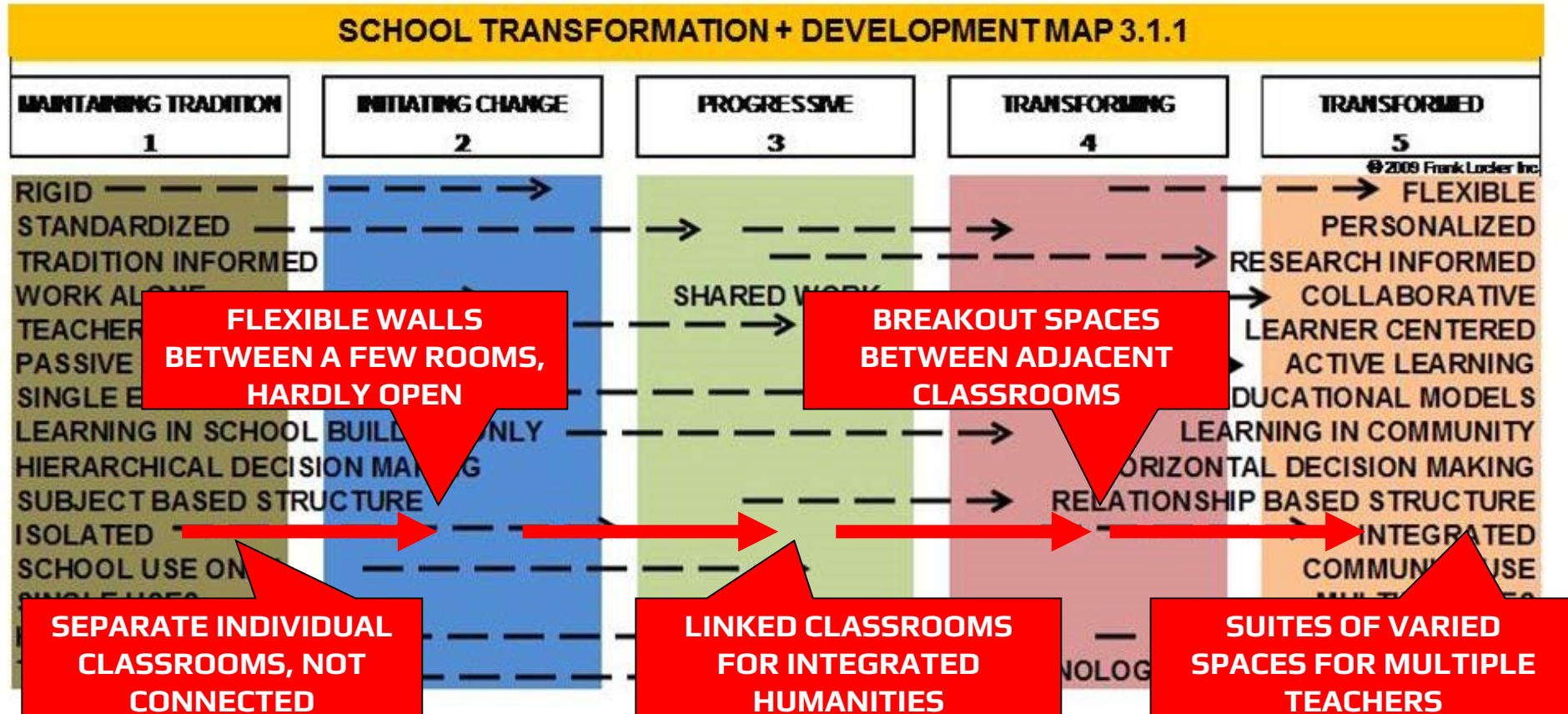
Education



© Frank Locker Inc., used by permission



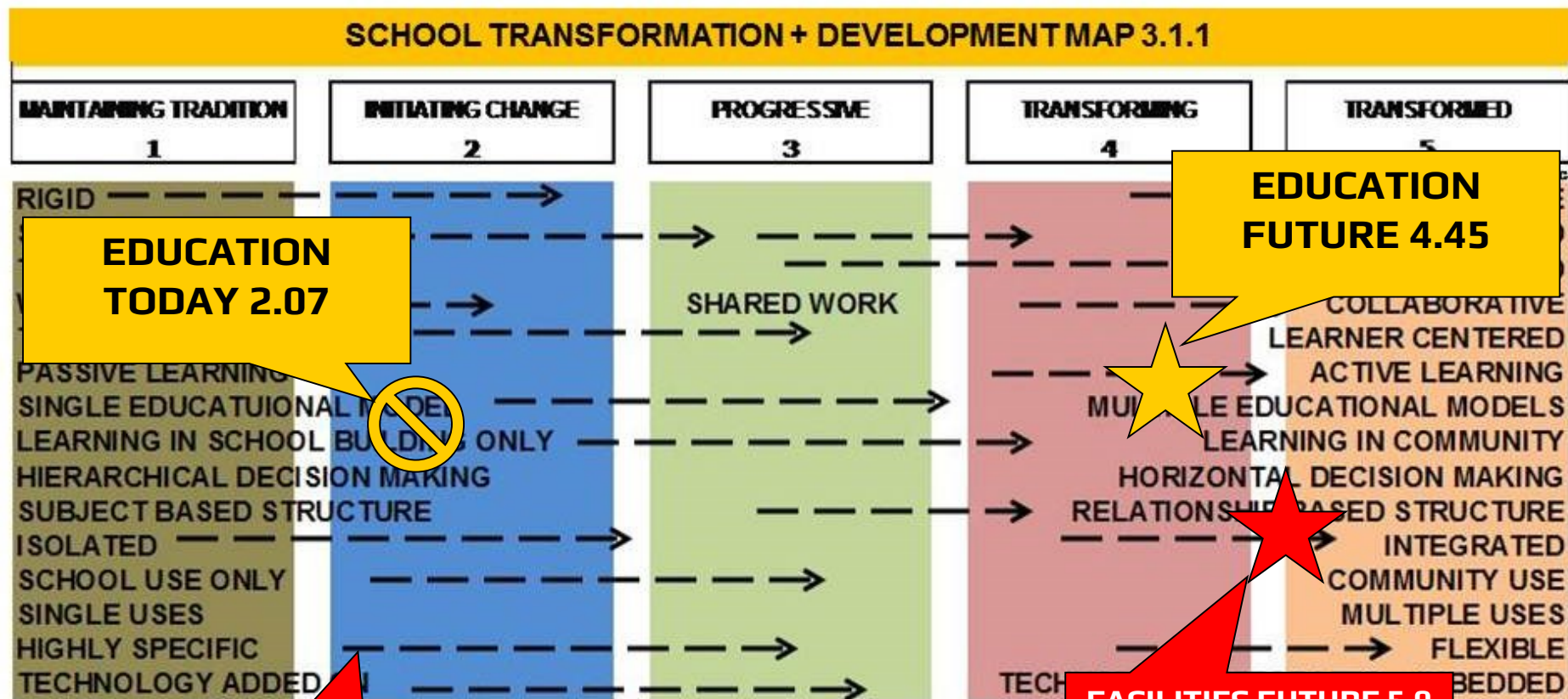
Facilities



© Frank Locker Inc., used with permission



thinkspace

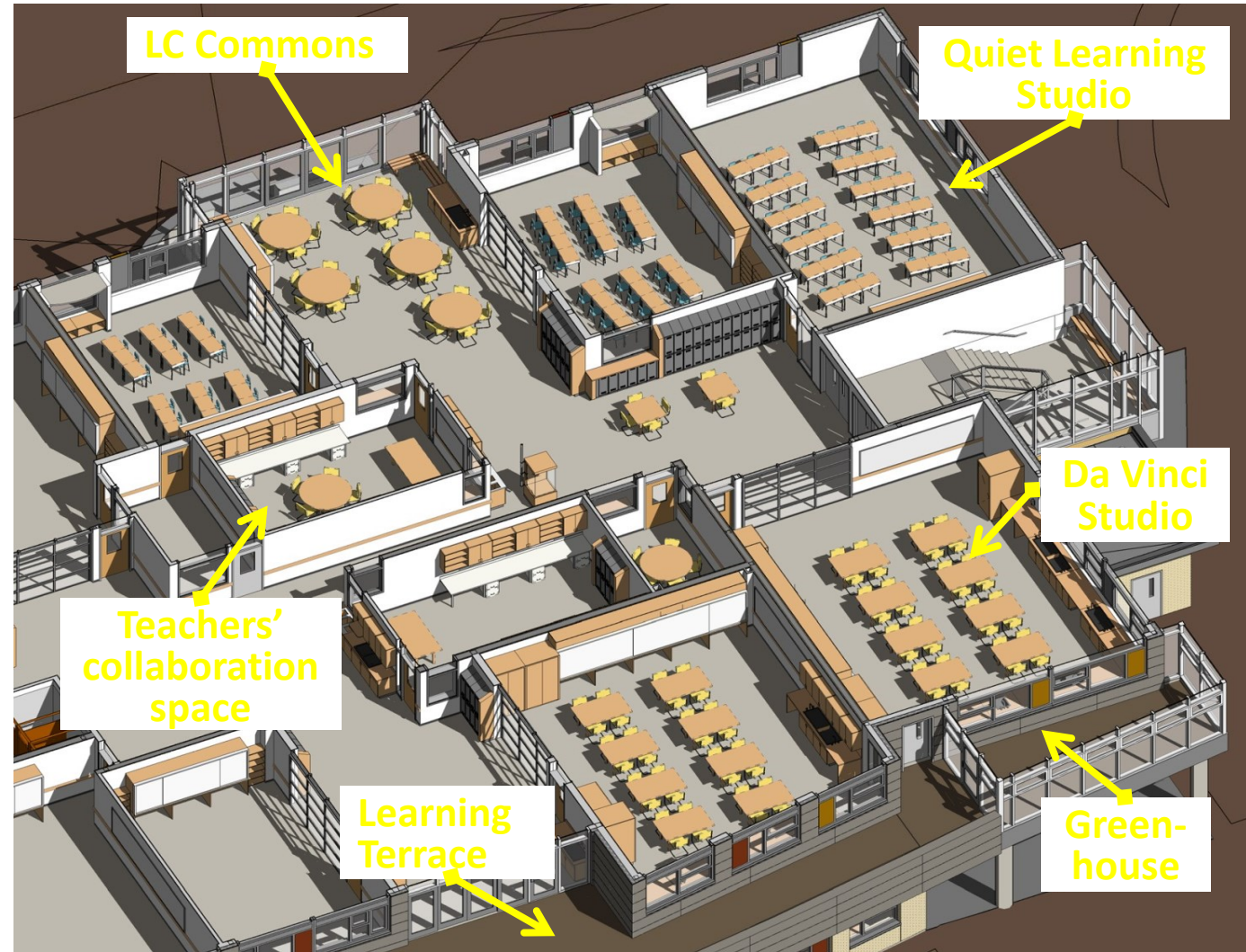


@ Fank Locker Inc., used with permission



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

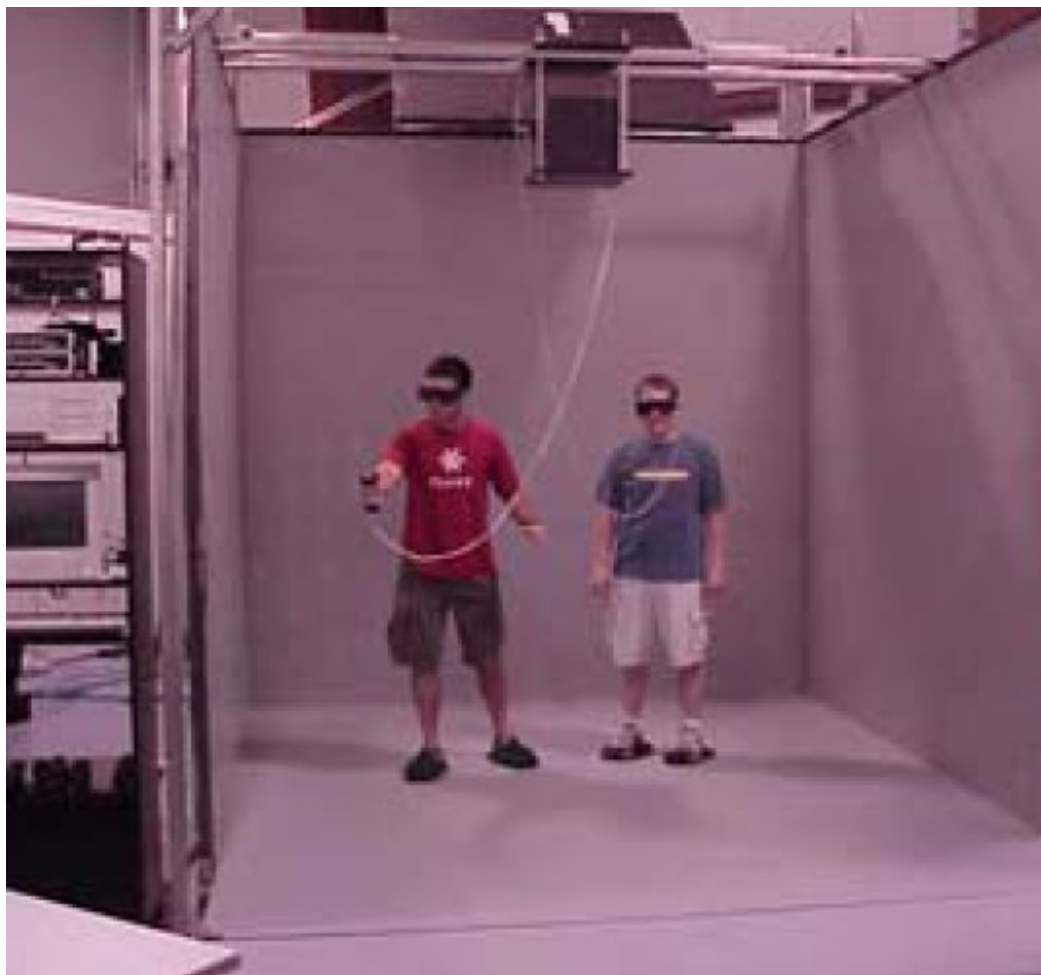
Prefer practical applications, authentic experiences, and hands on involvement

Want to learn, not be taught

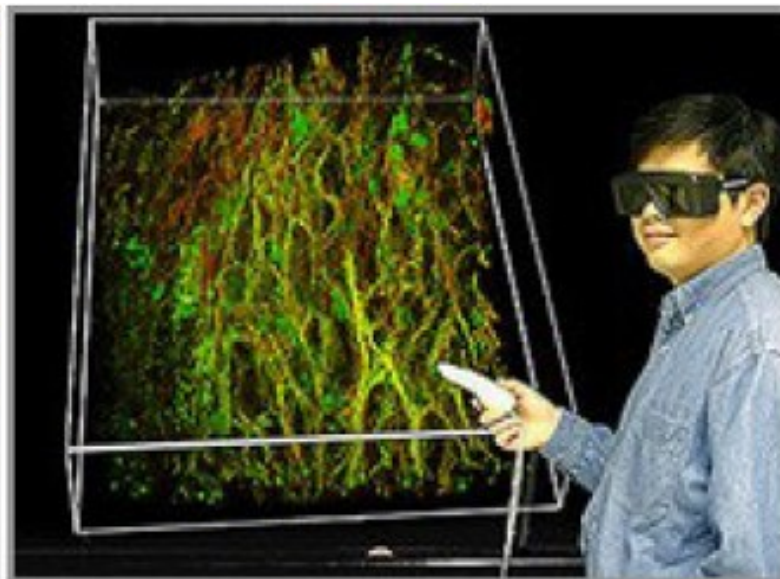
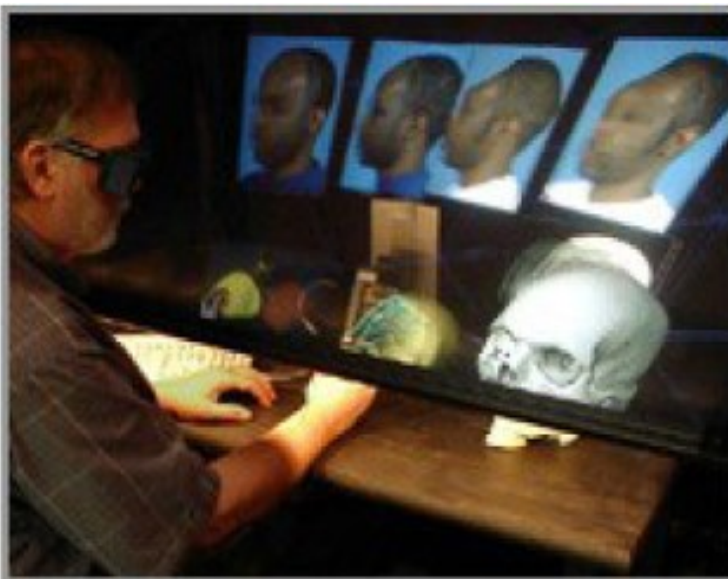
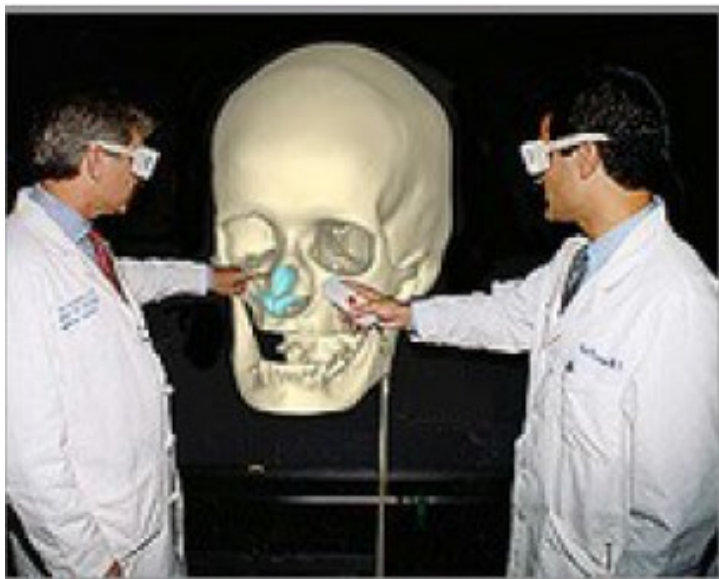








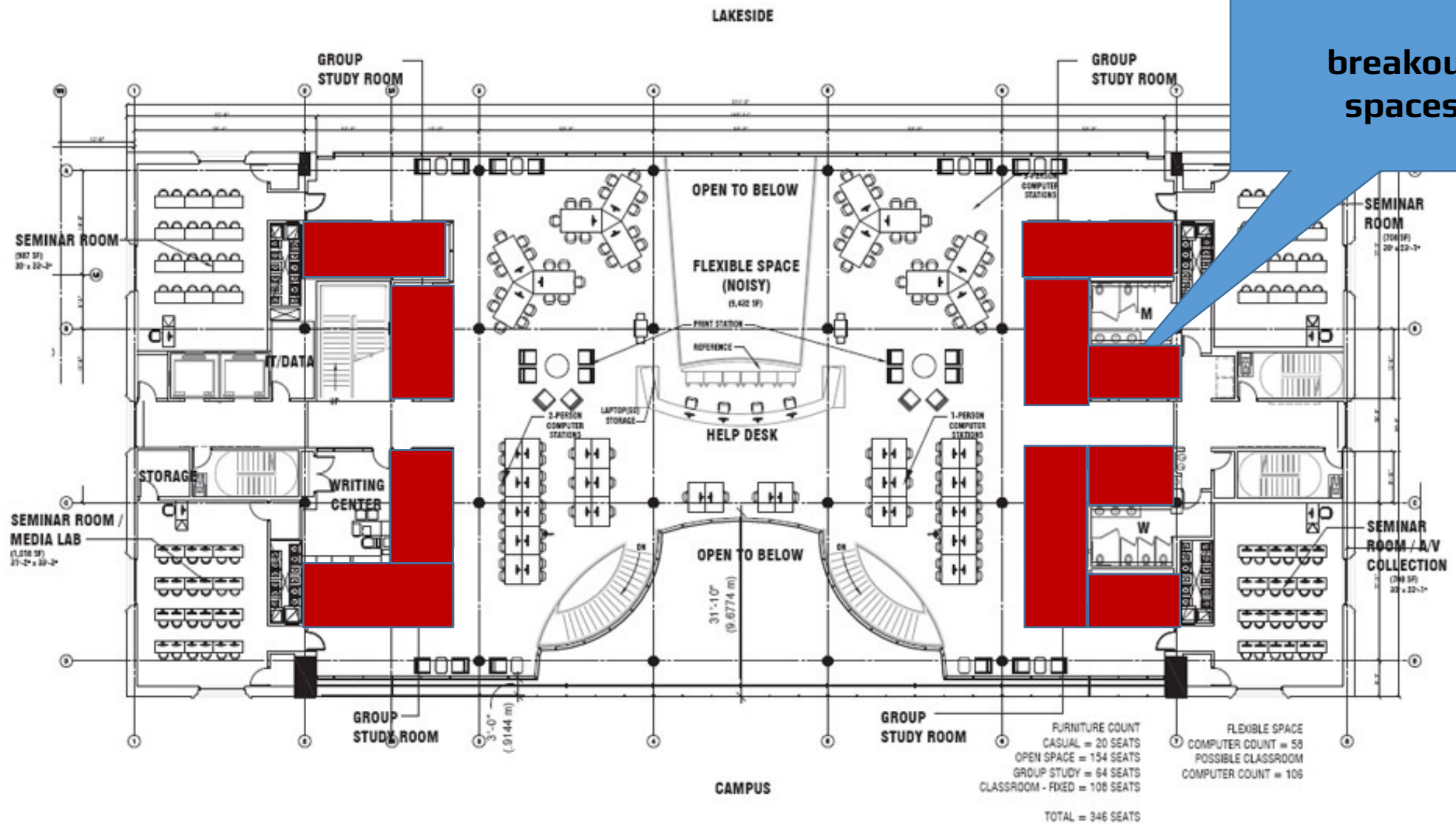
thinkspace





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**







thinkspace

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

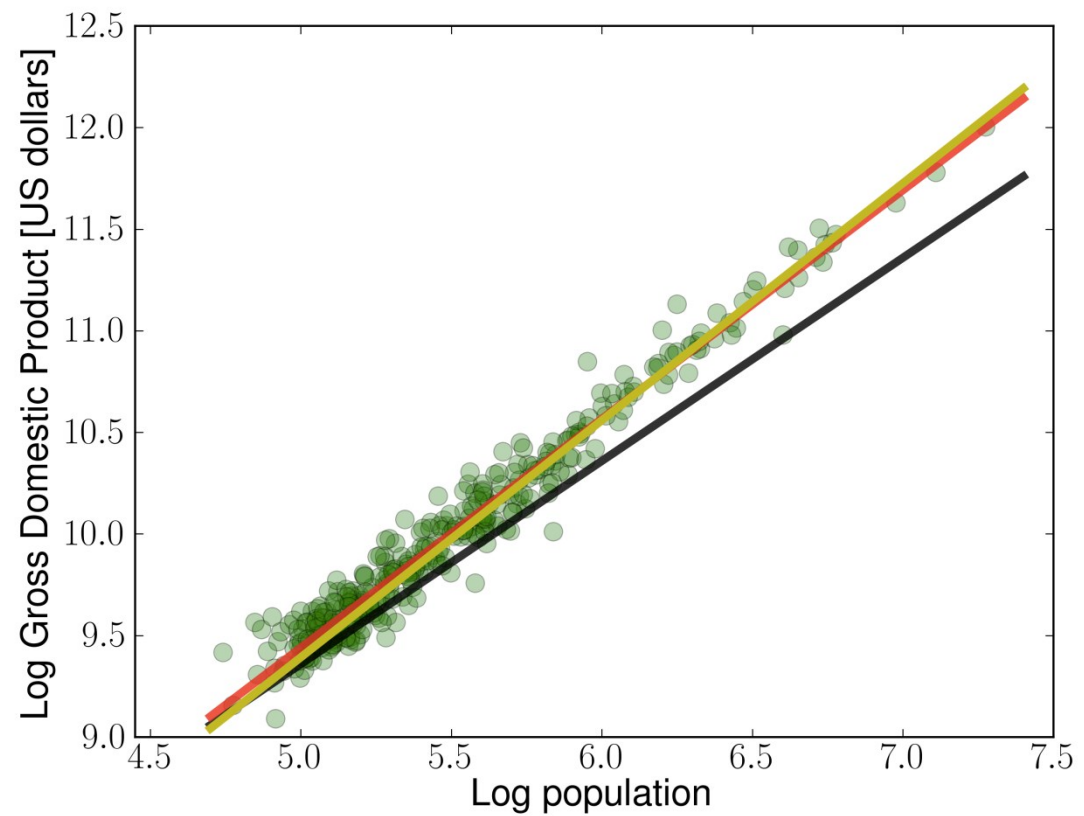
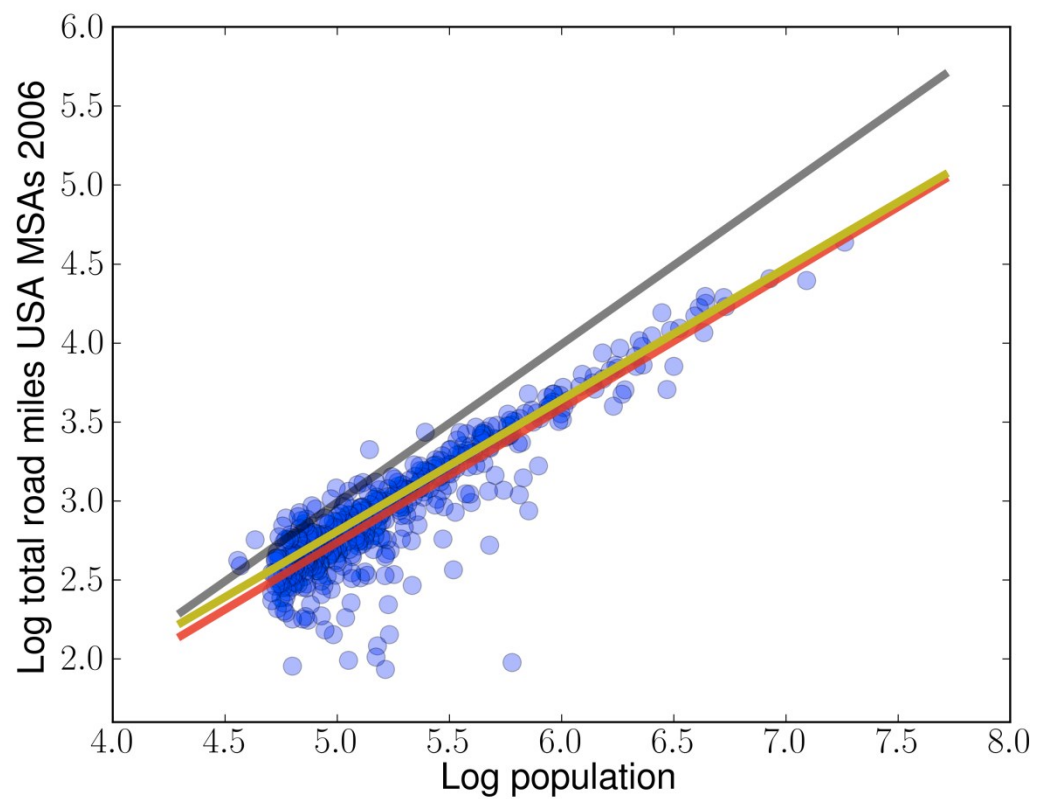
it is about connection and engagement

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.

