

Planning Physical Learning Spaces for Nurturing Interdisciplinary, Global Problem-Solvers

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Marci Sortor, Provost and Dean of the College—St. Olaf College
Rick Vaz, Dean, Interdisciplinary and Global Studies—Worcester
Polytechnic Institute



Agenda

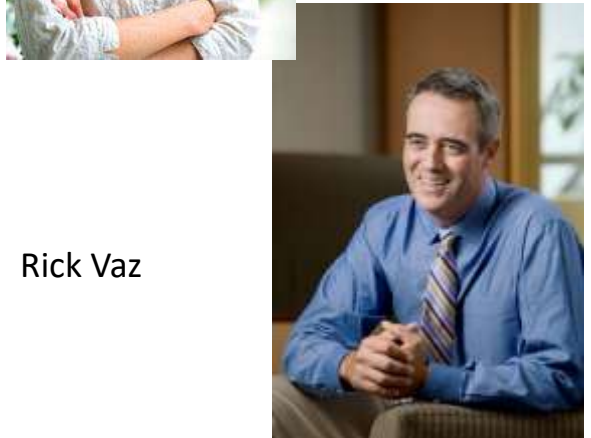
- ❖ Introduction: Key Questions
- ❖ Part I: Learning to become ...
- ❖ Part II: Learning experiences enabling that becoming ...
- ❖ Part III: Learning spaces enabling those experiences ...
- ❖ General discussion

Facilitators

Jeanne L. Narum



Marci Sortor



Rick Vaz



Key questions to be addressed

- About how space matters
- About the context for nurturing 21st century interdisciplinary, global problem-solvers
- About the process of planning spaces for nurturing 21st century interdisciplinary, global problem-solvers

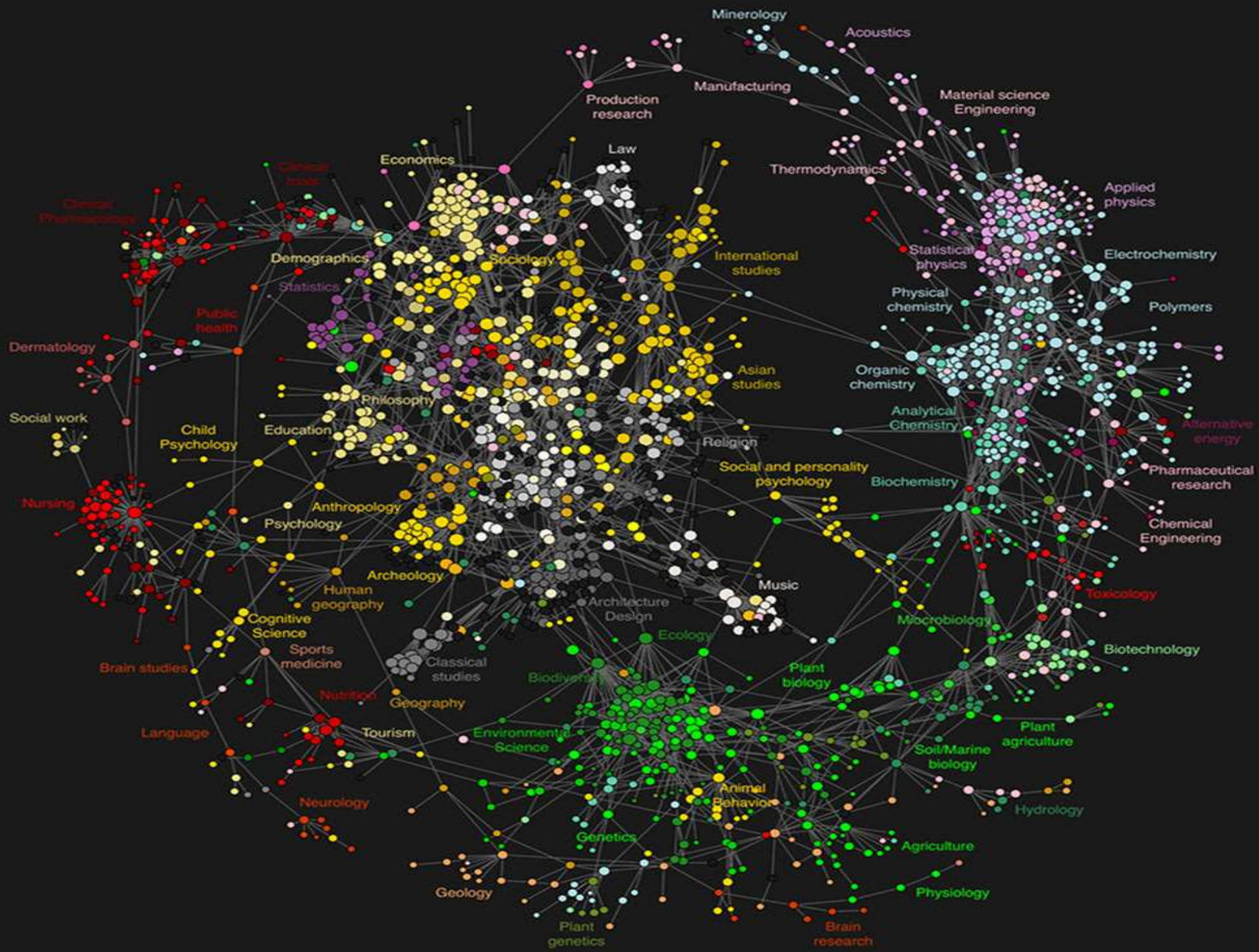


Key questions for you

- Part I: How does the question about *becoming* set the stage for discussions about nurturing 21st century leaders on your campus?
- Part II: Is there collective awareness on your campus about what kind of learning experiences nurture 21st century problem-solvers?
- Part III: What kind of spaces enable those experiences?

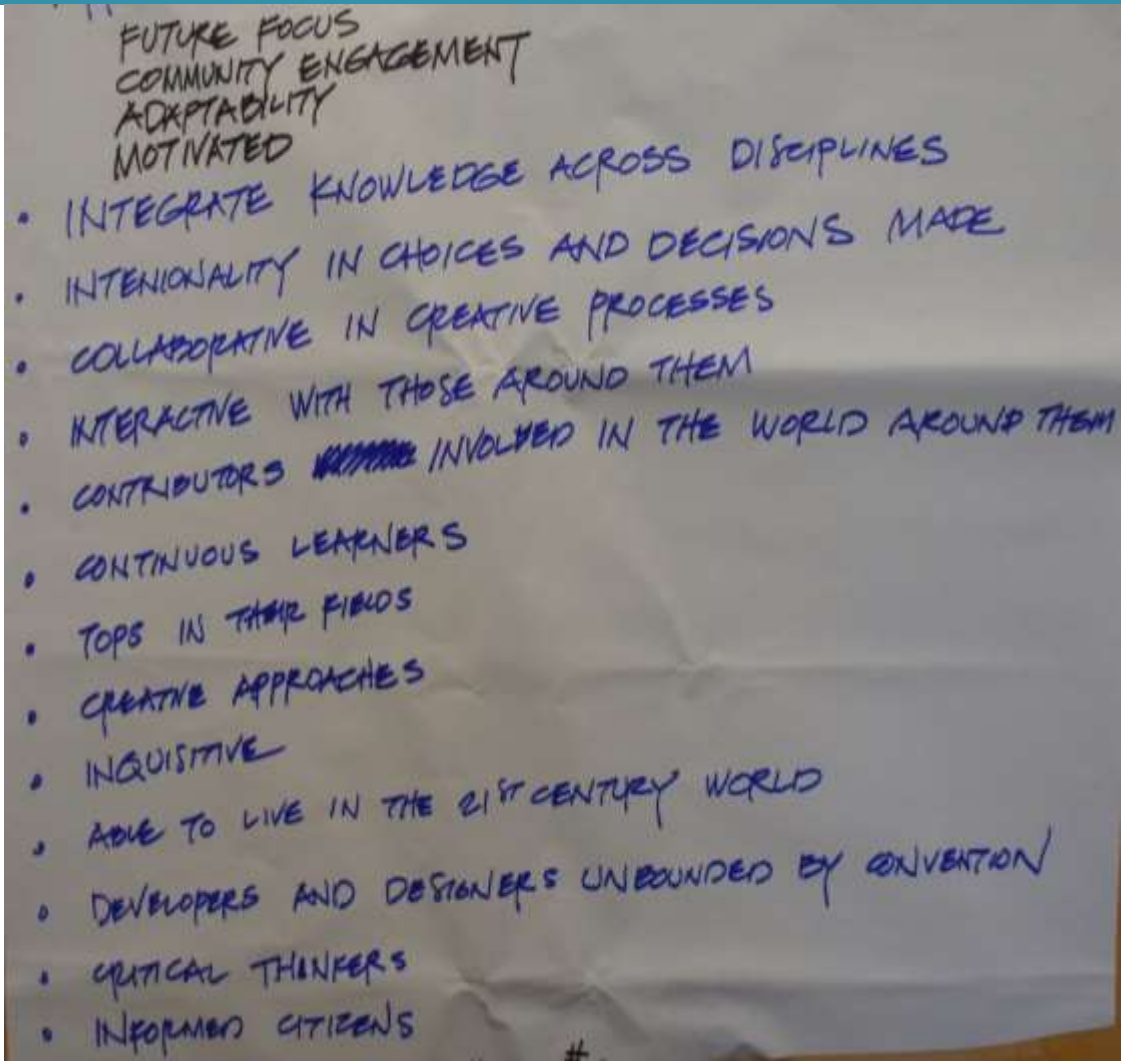








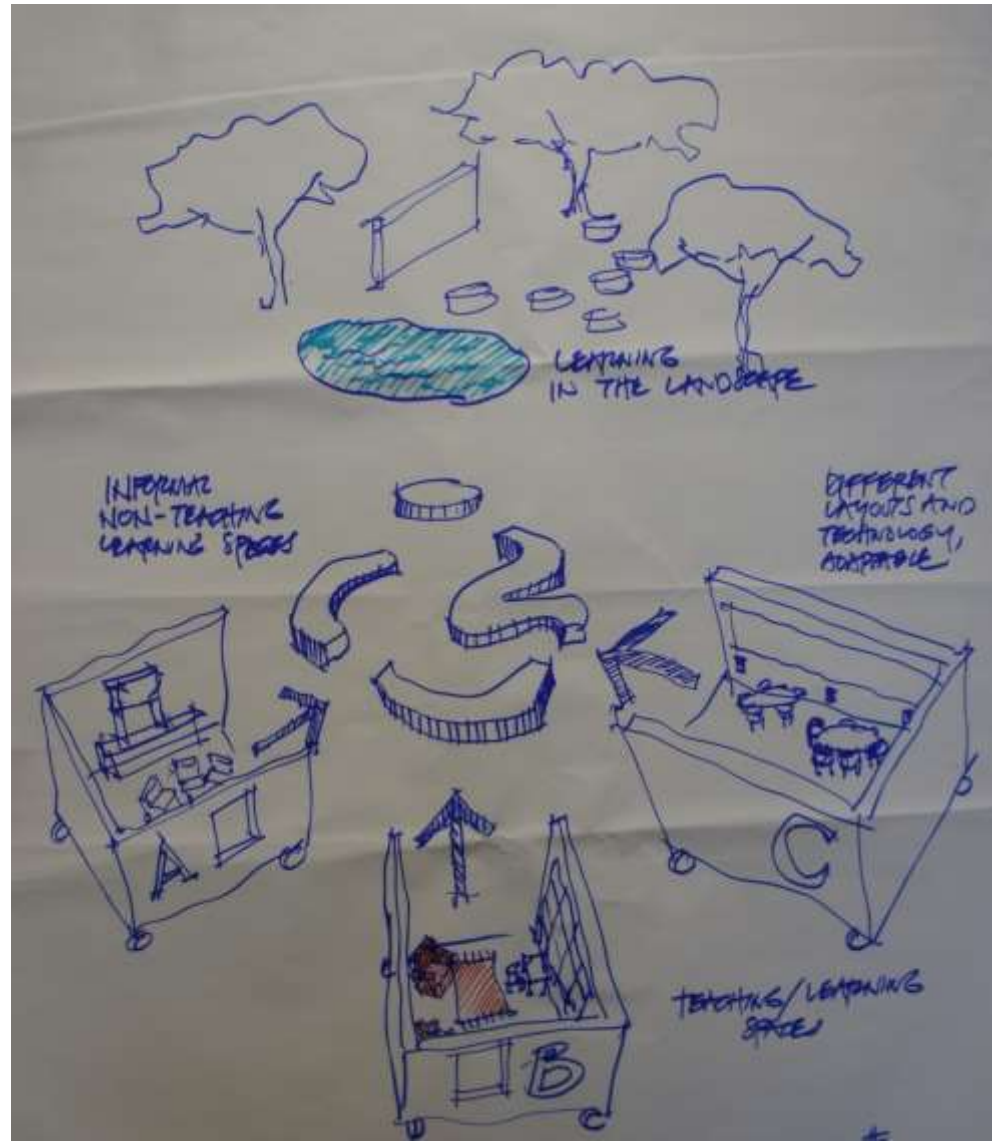
WHAT DO WE WANT OUR LEARNERS TO *BECOME*?

- 
- A photograph of a piece of white paper with handwritten text in blue ink. The paper is slightly crumpled and has a list of qualities for future learners. At the top, there are four words stacked vertically: 'FUTURE FOCUS', 'COMMUNITY ENGAGEMENT', 'ADAPTABILITY', and 'MOTIVATED'. Below these, there is a bulleted list of 14 items. The handwriting is in all caps and is somewhat informal.
- FUTURE FOCUS
 - COMMUNITY ENGAGEMENT
 - ADAPTABILITY
 - MOTIVATED
 - INTEGRATE KNOWLEDGE ACROSS DISCIPLINES
 - INTENTIONALITY IN CHOICES AND DECISIONS MADE
 - COLLABORATIVE IN CREATIVE PROCESSES
 - INTERACTIVE WITH THOSE AROUND THEM
 - CONTRIBUTORS ~~WANTING~~ INVOLVED IN THE WORLD AROUND THEM
 - CONTINUOUS LEARNERS
 - TOPS IN THEIR FIELDS
 - CREATIVE APPROACHES
 - INQUISITIVE
 - ABLE TO LIVE IN THE 21ST CENTURY WORLD
 - DEVELOPERS AND DESIGNERS UNBOUNDED BY CONVENTION
 - CRITICAL THINKERS
 - INFORMED CITIZENS

WHAT EXPERIENCES MAKE THAT *BECOMING* HAPPEN?

- INFORMAL SERENDIPITOUS DISCOVERY
- REAL LIFE APPLICATIONS
- CROSS DISCIPLINARY EXPERIENCES
- FEELING COMFORTABLE IN A SPACE AND SO
"CARED ABOUT" THAT YOU WANT TO CONTRIBUTE BACK
AT A VERY HIGH LEVEL
- FEELING INVITED TO PARTICIPATE / SHEDDING
INHIBITIONS
- EXPERIENCE OF TAKING RESPONSIBILITY
FOR SOLVING A DEFINED PROBLEM IN A COLLABORATIVE
SETTING
(IF IT IS NOT INTENTIONAL IT MAY NOT HAPPEN)
- BACK AND FORTH BETWEEN PERSONAL REFLECTION
AND COLLABORATION
- COLLABORATIVE INTENSIVE ^{AS A} TREAT
- FACULTY OPEN TO NEW IDEAS AND WAYS OF
TEACHING AND DEMONSTRATING ADAPTABILITY ^{involved}
AND THE EVOLUTION OF THINKING ^{interactive}
^{integrative}
^{intentional}
- ABILITY TO SHARE IDEAS READILY

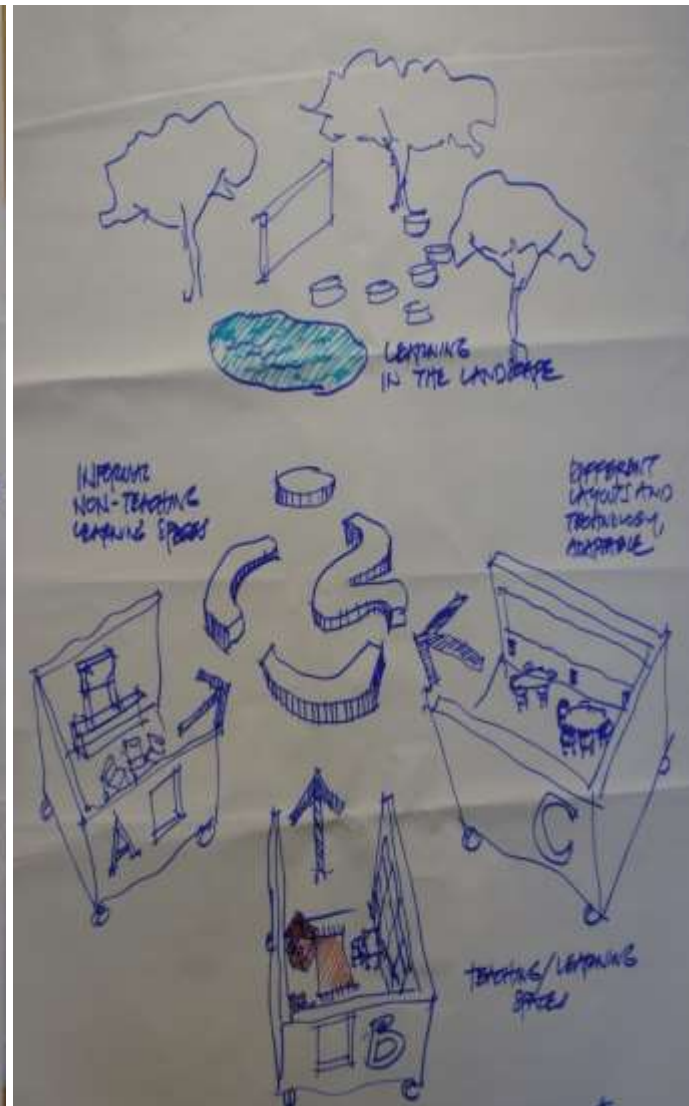
WHAT KIND OF SPACES ENABLE THOSE EXPERIENCES?



LEARNERS/LEARNING/SPACE

- FUTURE FOCUS
COMMUNITY ENGAGEMENT
ADAPTABILITY
MOTIVATED
- INTEGRATE KNOWLEDGE ACROSS DISCIPLINES
- INTENTIONALITY IN CHOICES AND DECISIONS MADE
- COLLABORATIVE IN CREATIVE PROCESSES
- INTERACTIVE WITH THOSE AROUND THEM
- CONTRIBUTORS ~~WANT~~ INVOLVED IN THE WORLD AROUND THEM
- CONTINUOUS LEARNERS
- TOPS IN THEIR FIELDS
- CREATIVE APPROACHES
- INQUISITIVE
- ABLE TO LIVE IN THE 21ST CENTURY WORLD
- DEVELOPERS AND OBSERVERS UNBOUNDED BY CONVENTION
- CRITICAL THINKERS
- NEIGHANED CITIZENS

- INFORMAL SERENDIPITOUS DISCOVERY
 - REAL LIFE APPLICATIONS
 - CROSS DISCIPLINARY EXPERIENCES
 - FEELING COMFORTABLE IN A SPACE AND SO "CARED ABOUT" THAT YOU WANT "CONTRIBUTE BACK" AT A VERY HIGH LEVEL
 - FEELING INVITED TO PARTICIPATE / SHEDDING INHIBITIONS
 - EXPERIENCE OF TAKING RESPONSIBILITY FOR SOLVING A DEFINED PROBLEM IN A COLLABORATIVE SETTING
(IF IT IS NOT INTENTIONAL IT MAY NOT HAPPEN)
 - BACK AND FORTH BETWEEN PERSONAL REFLECTION AND COLLABORATION
 - COLLABORATIVE INTENSIVE ^{AS A} TREAT
 - FACULTY OPEN TO NEW IDEAS AND WAYS OF TEACHING AND DEMONSTRATING ADAPTABILITY AND THE EVOLUTION OF THINKING
 - FACULTY TO SHARE IDEAS READILY
- involved
interactive
integrative
intentional



Part I

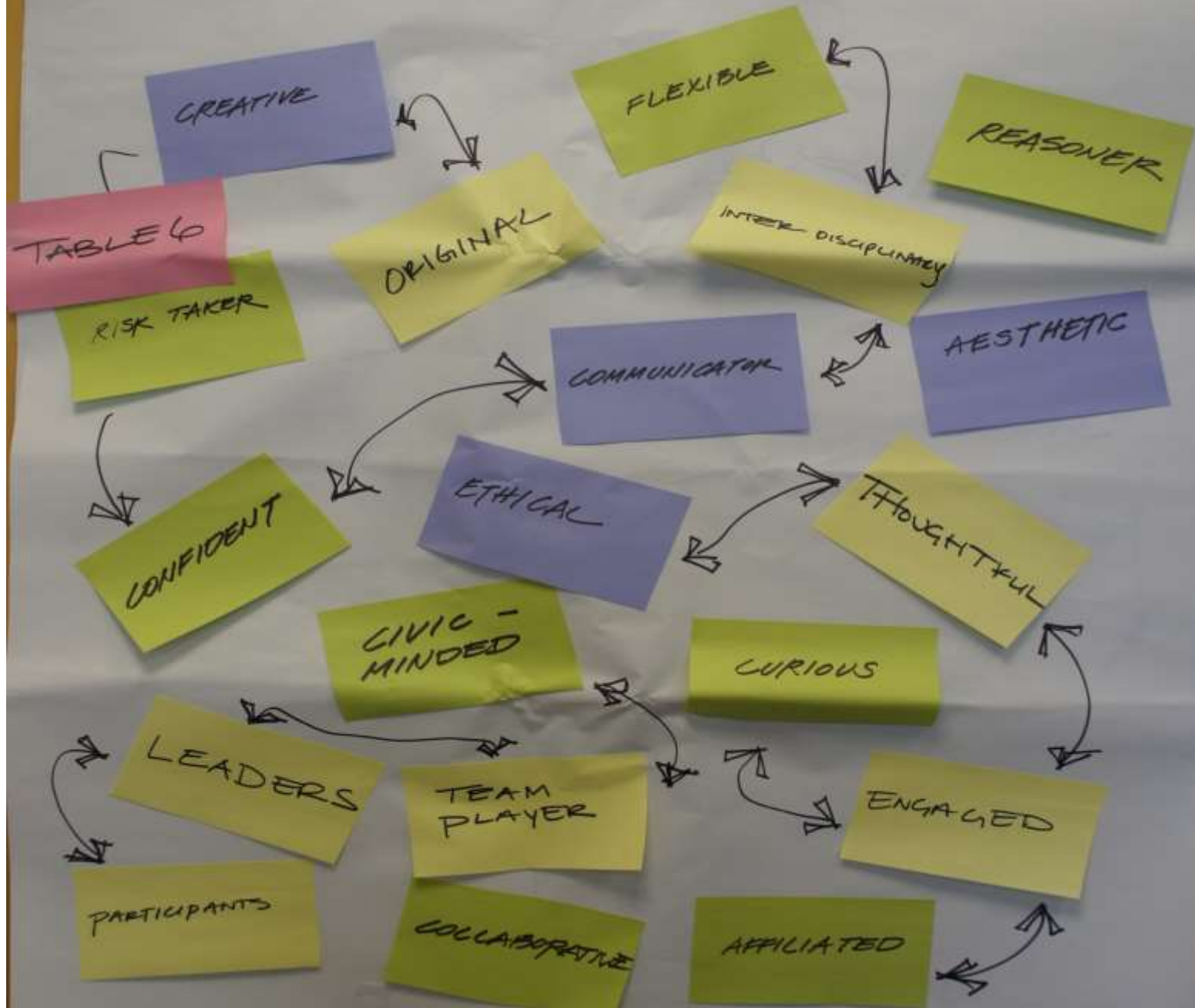
WHAT DO WE WANT OUR
LEARNERS TO *BECOME*?

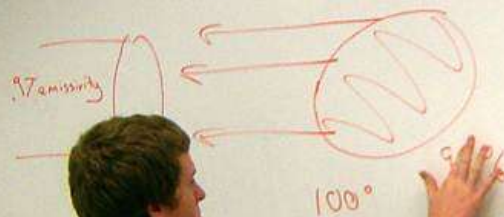
Employers Endorse Key Elements Of Liberal Education

*% saying colleges should **put** more emphasis on each learning outcome*

Concepts and new developments in science & technology	82%
Teamwork skills and the ability to collaborate with others in diverse group settings	76%
The ability to apply knowledge and skills to real-world settings through internships or other hands-on experiences	73%
The ability to effectively communicate orally and in writing	73%
Critical thinking and analytical reasoning skills	73%
Global issues and developments and their implications for the future	72%
The ability to locate, organize, and evaluate information from multiple sources	70%
The ability to be innovative and think creatively	70%

WHAT DO WE WANT OUR STUDENTS TO BE...

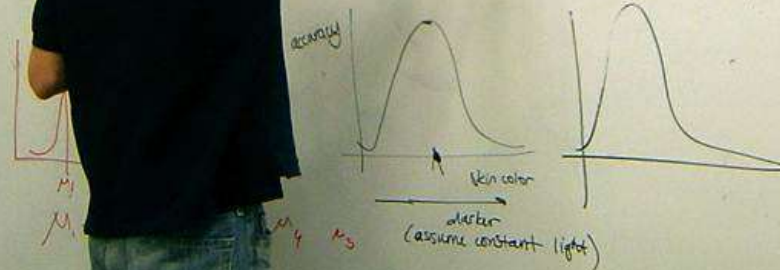




100%
skatig?
UV lamp?
sun lamp?

	dark skin	light skin
temporal therm control (thermophile)		

How close are
depends
all light
UV - 400-4000



Why should we still test for skin color?

- hasn't been considered yet/minimal studies
- calibration
- is there still another factor that may throw off skin emissivity?
- take temp in sunlight?
- ease of exp. design & execution
- no one else wants to touch the topic
- it's now





Volley Club HEC

TON ELEVE
CE SOIR
ENTR. STIMULANTE & SEC.

La Luxure

11 octobre
22H-01

France



Part I

Key question for you

How does the question about *becoming* set the stage for discussions about nurturing interdisciplinary, global leaders? What lessons have you learned?



I understand they're going to connect them. The Provost ordered it.

From: "Facilitating interdisciplinary research," National Academy of Sciences

Part II

WHAT EXPERIENCES MAKE THAT
BECOMING HAPPEN?

WORLD

U.S.

N.Y. / REGION

BUSINESS

TECHNOLOGY

SCIENCE

HEALTH

SPORTS

OPINION

ENVIRONMENT SPACE & COSMOS

Collaborate with Anyone, Anywhere

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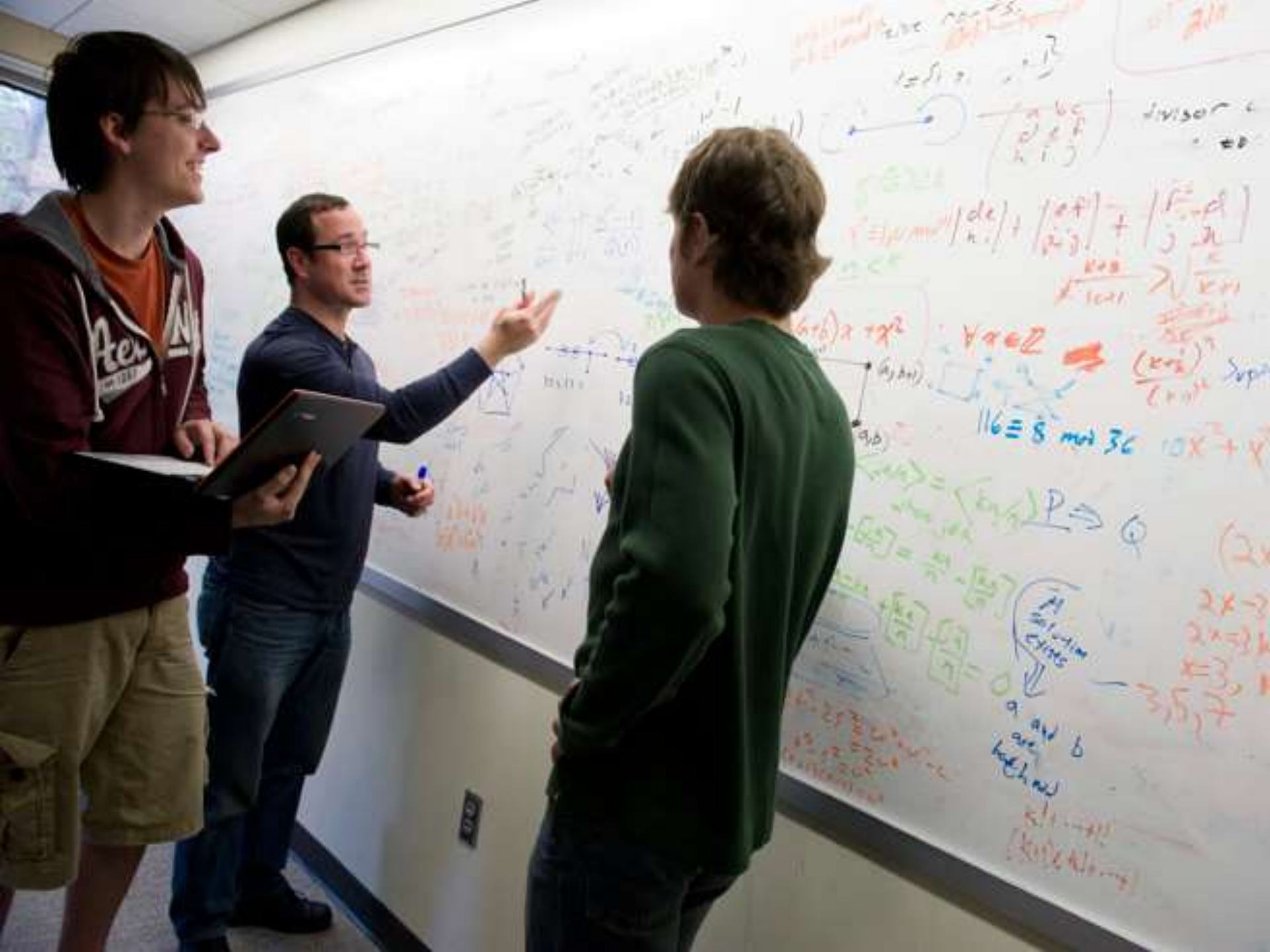
30-Day GoToMeeting

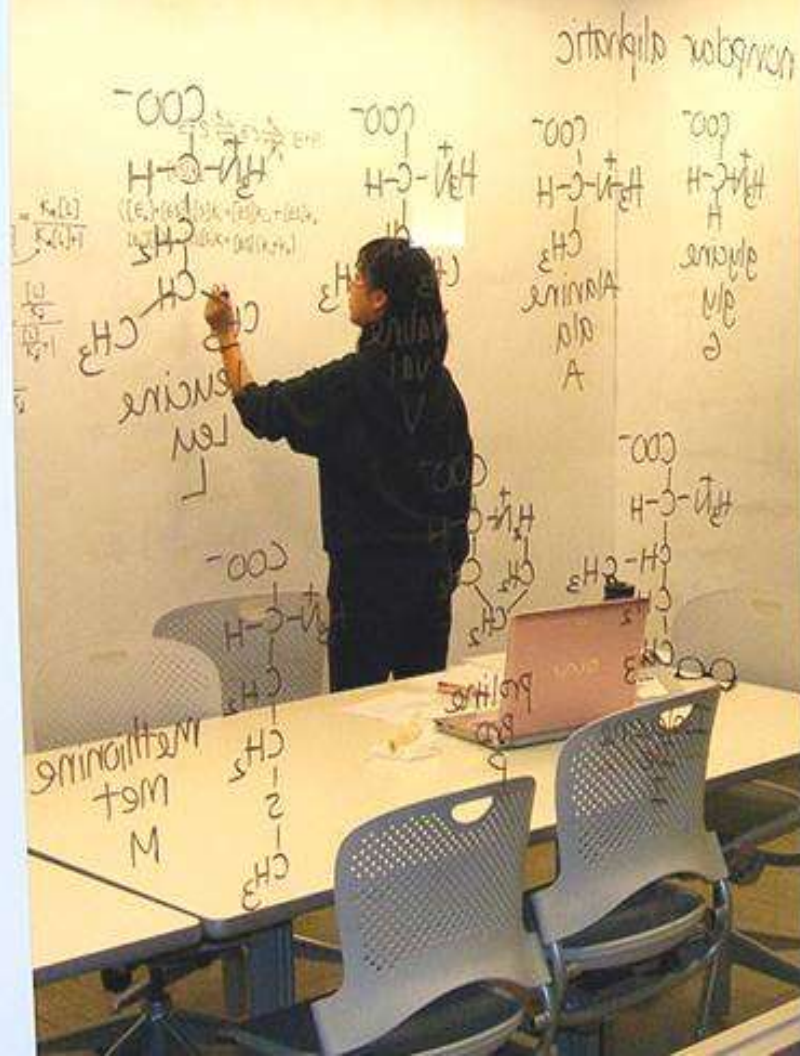
Computer Wins on ‘Jeopardy!’: Trivial, It’s Not



Carol Kaelson/Jeopardy Productions Inc., via Associated Press













Part II

Key question for you

Is there collective awareness
on your campus about what
kind of learning experiences
nurture 21st century ID,
global problem-solvers?

Part III

What kind of *spaces* enable those experiences?











