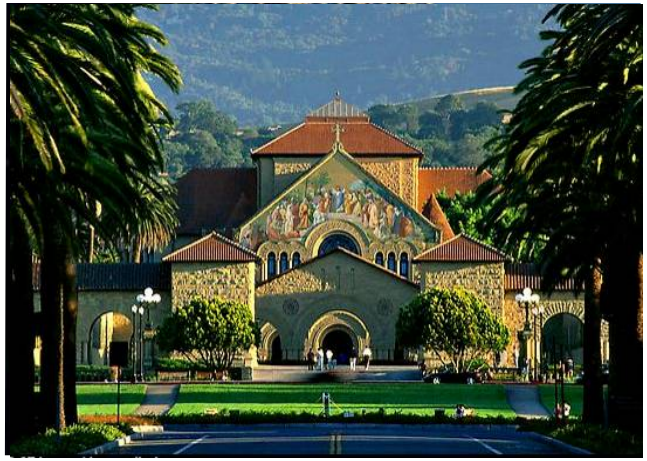
PERKINS
+ WILL

Next generation learning environments that inspire learning and discovery



2006 WISCAPE Conference

Higher Education Today and Tomorrow
Madison, WI

09.26.06

PERKINS
+WILL

Introduction

Jeff Stebar, AIA, LEED
Principal
Perkins+Will

Jeff Ziebarth, AIA, LEED
Principal
Perkins+Will

DIRECTION AND DIMENSION

PERKINS
+WILL

Higher Education: Today and Tomorrow

1. Higher Education *Today*
2. Signs of the Times
   - Demographics
   - Globalization
   - Information Technology
   - Key Trends
   - Changes to Curriculum
3. Today and Tomorrow
   - Future in Higher Education
   - Changes to the Institution
   - Future of Physical Environment
4. Campus and Community
5. Project Example

1

Higher Education *Today*

PERKINS
+WILL

Higher Education: Today







Students of 2006:

Live 24/7 Lifestyle

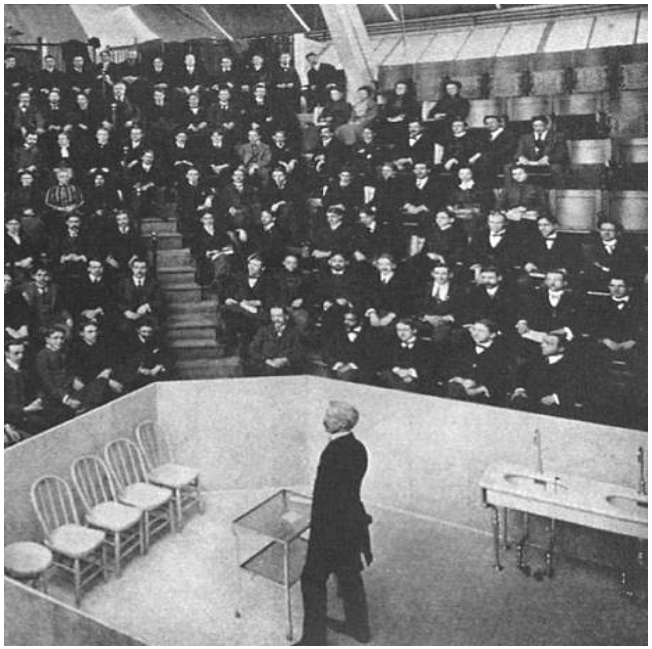
- Retail Savvy
- Techno Natives
- Expect User-friendly Everything
- On the Run / One-stop or No-stop Service
- Multi-tasking / Multi-media
- No Traditional Meal Periods

Instant & Constant Communicatio

- Across the World vs. Across the Hall
- Want Information Now
- Seeking Balance thru Activities
- Seeking Community, Involvement & Leadership Opportunities

PERKINS
+WILL

Higher Education: Today

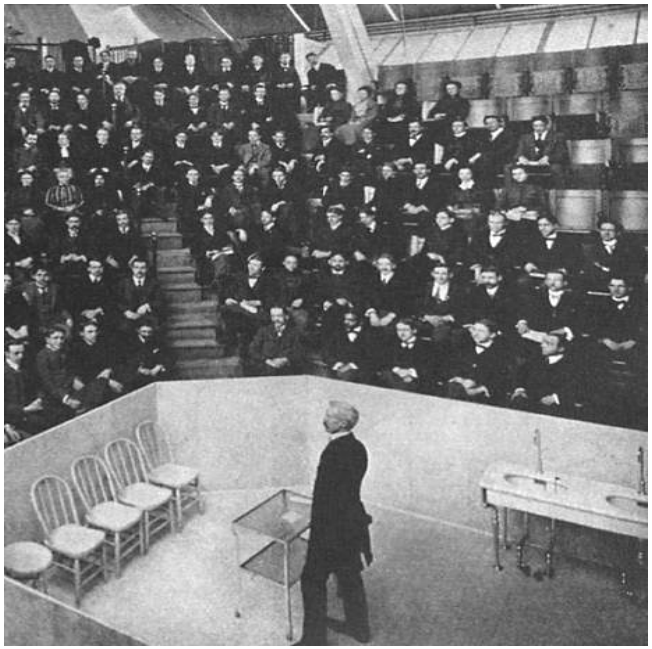


Today's students…

- The Soviet Union has never existed.
- They have grown up getting lost in "big boxes."
- "Google" has always been a verb.
- "Madden" has always been a game, not a Superbowl-winning coach.
- They have rarely mailed anything using a stamp.
- They have always preferred going out in groups as opposed to dating.
- There has always been a pyramid

PERKINS
+WILL

Higher Education: Today



Today's students…

- Acura, Lexus, and Infiniti have always been luxury cars of choice.
- Professional athletes have always competed in the Olympics.
- They don't remember when "cut and paste" involved scissors.
- Starbucks has always been around the corner.
- Michael Jackson has always been bad, and greed has always been good.

PERKINS
+WILL

Higher Education : Today

PERKINS
+WILL

Higher Education : Today

PERKINS
+ WILL

Higher Education: Today

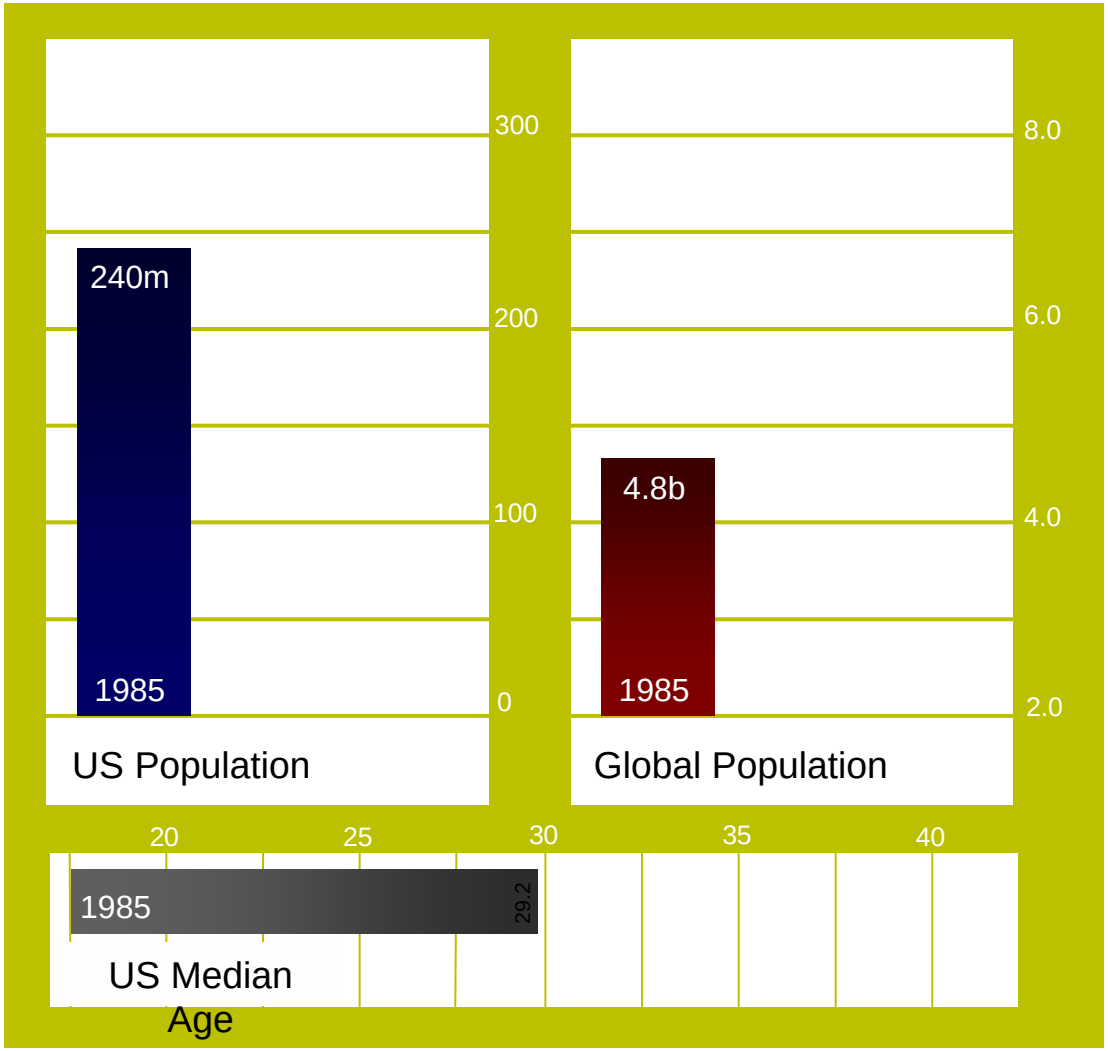
What does the next generation college student look like today?

Let’s look at the class of 2025…..

2. Signs of the Times

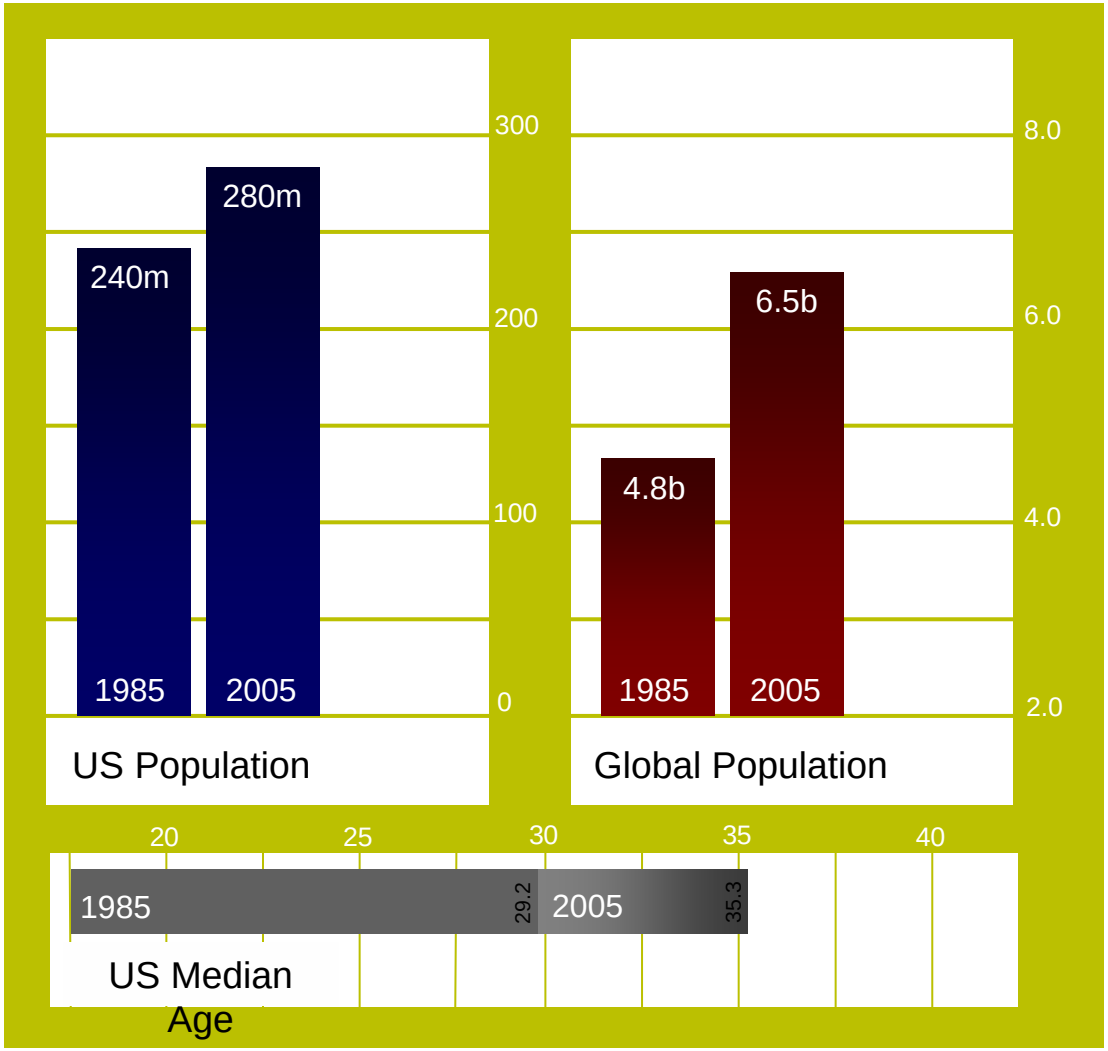
PERKINS
+ WILL

Signs of the Times



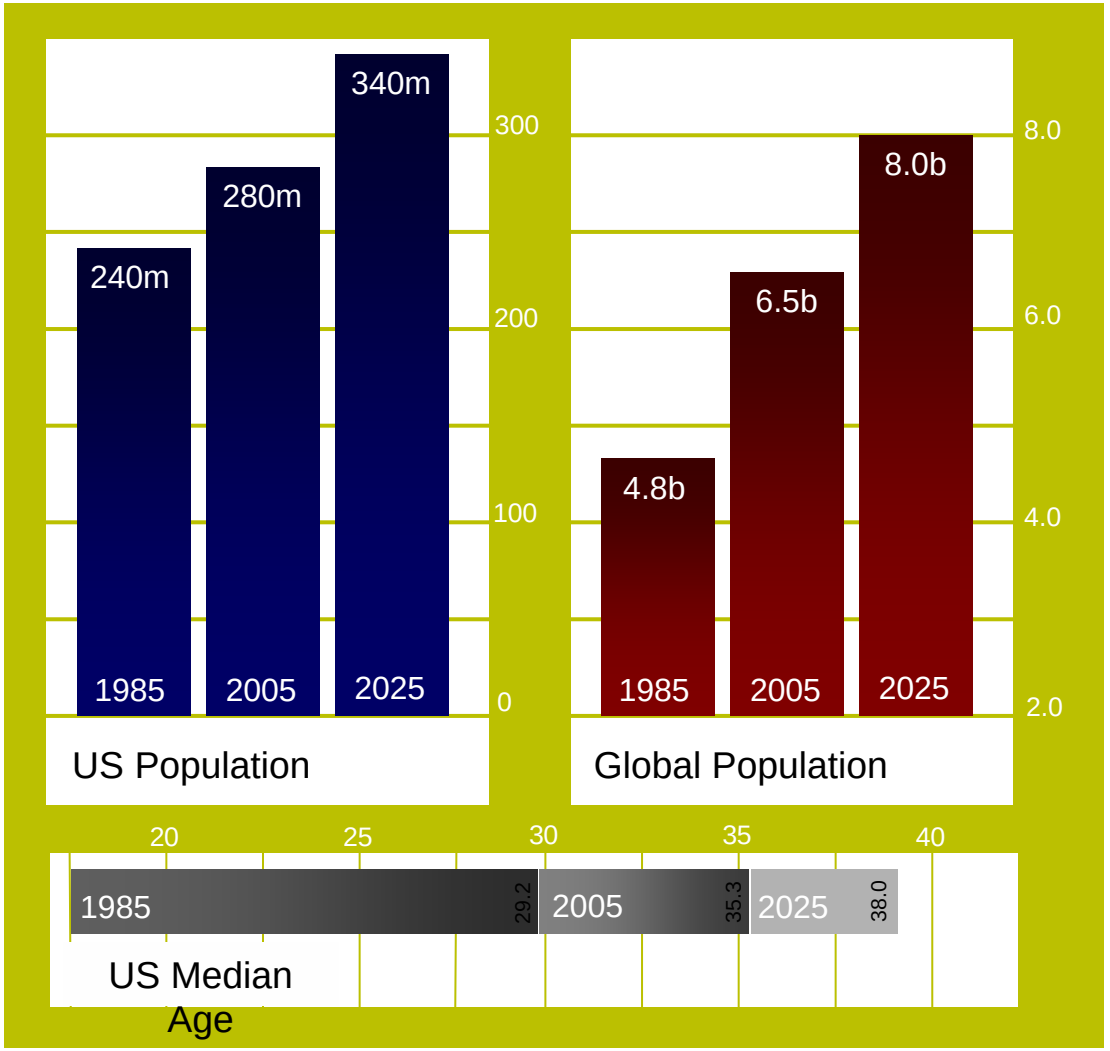
PERKINS
+ WILL

Signs of the Times



PERKINS
+ WILL

Signs of the Times



PERKINS
+ WILL

Signs of the Times








Demographics

Demand for Access to HE

- High School Graduates:
  - 1980 56%,
  - 2005 67%
- High School Class Growth:
  - 20% 1996 - 2005
  - 16% 2006 - 2015
- Higher Education Faculty Growth
  - 16% by 2015
- Average 4-year degree
  - 5+ years
- More students with families

US Bureau of Labor Statistics / National Center for Education Statistics

James Morrison, “U.S. Higher Education in Transition”, On the Horizon, 11(1), p. 6-10, 2003,

PERKINS
+WILL

Signs of the Times

Demographics

Age:

- US by 2010:
  - 43% of Adults > age 50
  - 50% HE students > age 21
- Adult Education Programs:
  - *1995: 76 million*
  - *2005: 103 million*

HE Faculty:

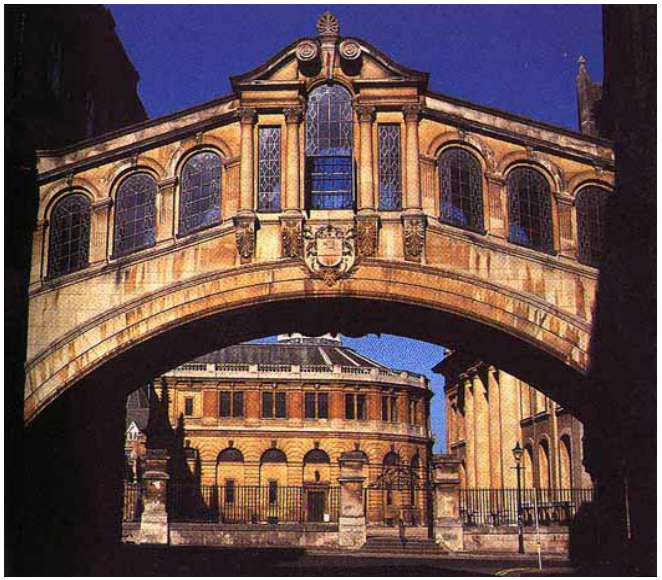
- 20% will retire by 2010
  - New Talent
  - Increased IT demands

American Demographics, 2001 / National Center for Education

James Morrison, “U.S. Higher Education in Transition”, On the Horizon, 11(1), p. 6-10, 2003,

PERKINS
+WILL

Signs of the Times



Globalization

Economic Impact:

World's largest 100 economies:

- 49 are countries
- *51 are multi-national corporations*

Wolfe; "Countries Still Rule the World" , Financial Times 2002

Organizational Downsizing

- Outsourcing / Off-shoring
- Virtual Companies
- *Constant Need for Retraining*
  - *75% of workforce will need retraining just to stay qualified*
  - *Job-hopping / Career-hopping*

American Society for Training and Development; Marklein, "Colleges Not Prepared to Serve Older Learners", USA Today, 11.17.97

James Morrison, "U.S. Higher Education in Transition", On the Horizon, 11(1), p. 6-10, 2003,

PERKINS
+WILL

Signs of the Times

Information Technology

The Techno-native Generation

Combined forces redefine HE

- Universal accessibility
- Social Computing
  - Virtual collaboration vs. face-to-face meetings
  - Working at distance, online conferences, etc.

Separation of knowledge from the institution

PERKINS
+WILL

Signs of the Times

Information Technology

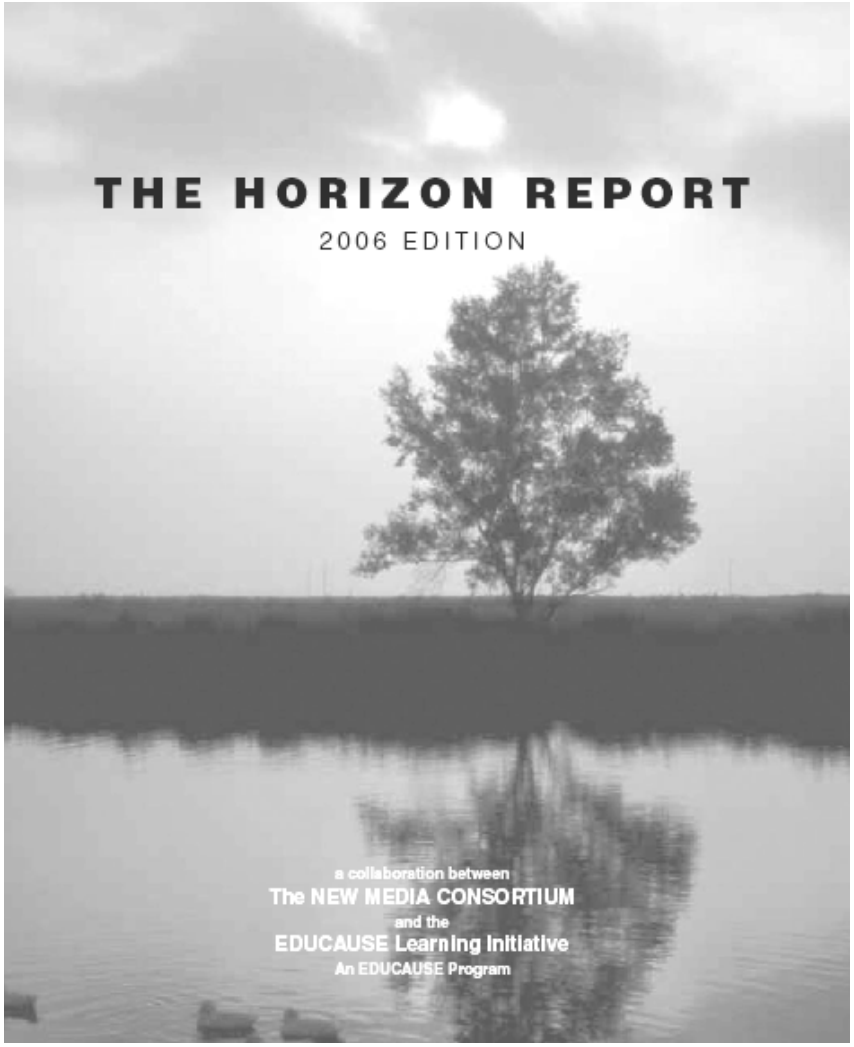
The Techno-native Generation

- Internet Allows Educators
  - Center learning around student
  - Use authentic data (real experience)
  - Focus on strengths of individuals
  - Make lifelong learning a reality
- The Bookless Campus
  - E-libraries
  - 24 / 7 Reference Desks
- Flexible Calendars
  - University of Phoenix
    - Begins classes every two weeks

James Morrison, “U.S. Higher Education in Transition”, On the Horizon, 11(1), p. 6-10, 2003,

PERKINS
+ WILL

Signs of the Times



Key Trends:

- Knowledge Creation & Social Computing Tools
  - Collaboration at a distance
  - Attending online conference
  - Contribute to a project wiki
- Mobile & Personal Technology
  - Delivery platforms
    - Cell phones, mp3, PDA's
  - Personal Broadcasting
    - Podcasting, vlogging, blogging
- Expectation of Individualized Services & Experiences
  - Personalized content & services
- Collaboration Seen as Critical
  - Intra & Inter-institutional activities

New Media Consortium & EDUCAUSE Learning Initiative, "The Horizon Report", 2006 Edition

PERKINS
+ WILL

Signs of the Times

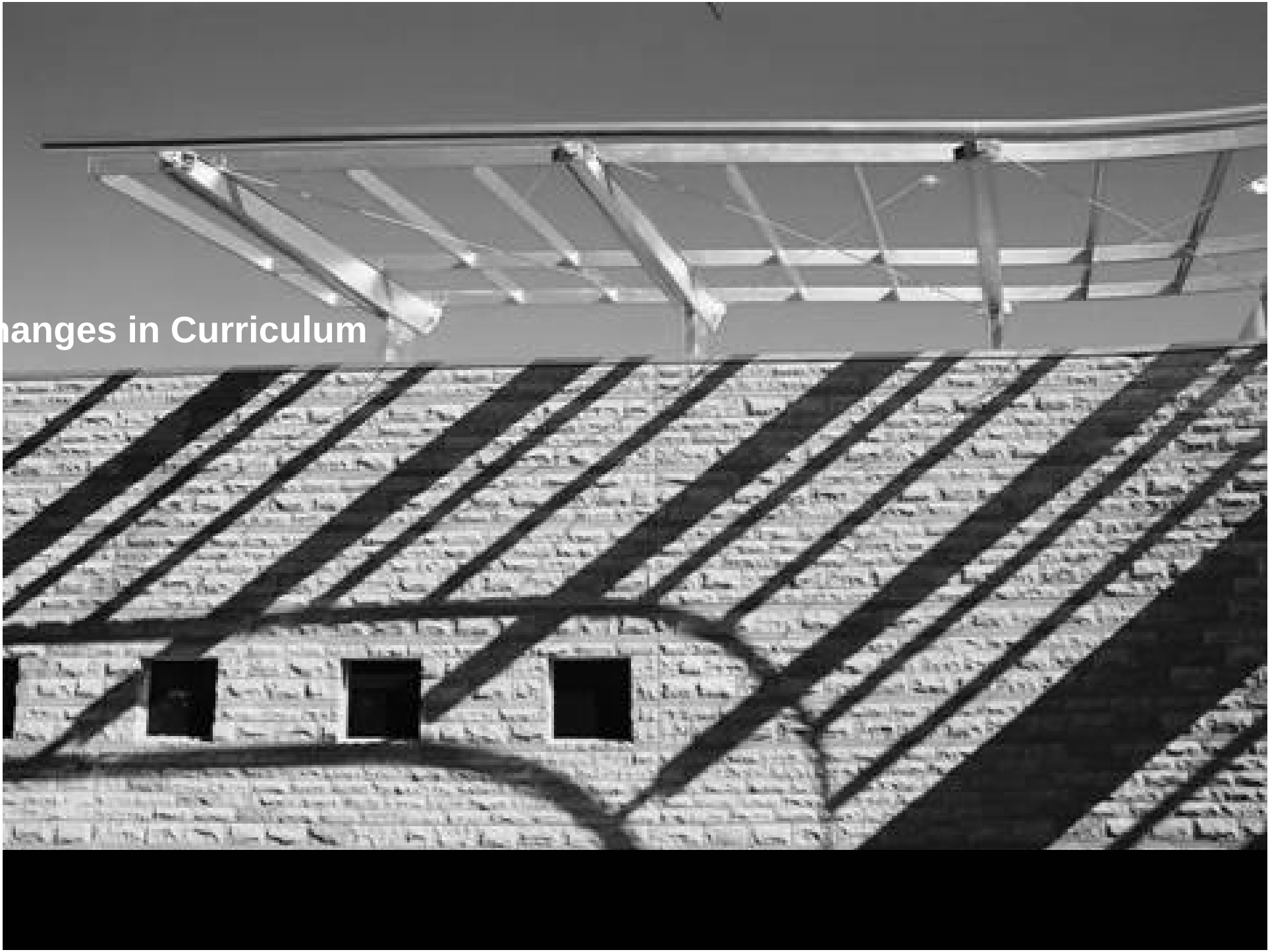
- Rio Salado College (AZ) 2001:
  - *Continuous Enrollment*
  - *Classes begin every two weeks*

    Morrison, J. & Twigg, C.,The Technology Source, May/June 2001
- University of Illinois on Line:
  - Established to compete with online Universities
- Cisco's in-house training
  - $1800 v.$120 / worker on-line

    "Virtual Classroom is the Future" Sunday Times, April 29, 2001
- Brigham Young University 2005:
  - Online courses for *on-campus* freshman
- *"Corporate training and distance learning will wipe out many of the 700 MBA programs that issue 100,000 MBA's each year"*

  D. Jones, Dean of University of Chicago School of Business *(USA Today, May 23, 2000)*

James Morrison, "U.S. Higher Education in Transition", On the Horizon, 11(1), p. 6-10, 2003,


anges in Curriculum

PERKINS
+ WILL

Changes to Curriculum

Deconstruction of Traditional Patterns

- Epistemological
  - Taking apart subject matter
- Chronological
  - Taking apart 4-year programs
- Topographical
  - Taking apart of single university model

Modularization of curriculum

- “A Credit Culture”
- Education as a “Kit of Parts”
- More student-oriented
  - Assemble custom degree programs
  - Ease of transferability
- Respond to needs of business

David Bridges, Cambridge Journal of Education, Vol. 30, No. 1, 2000,

PERKINS
+ WILL

Changes to Curriculum





Key Skills Movement: AKA.

- Transferable Skills
- Cross-curricular Skills
- Core Skills

All studies focus on:

- Problem Solving
- Critical Thinking
- Communications
- Information Technology
- Collaboration / Team work

Societal needs v. Individual needs

- Economic development / Liberal arts
- Best delivery methods?
- Knowing “that” v. Knowing “how”

David Bridges, Cambridge Journal of Education, Vol. 30, No. 1, 2000,

3. oday and Tomorrow

PERKINS
+WILL

Today and Tomorrow

Past Paradigm:

- Higher Education
  - Teacher directed
  - Class / common age
- Measurement: *(input based)*
  - Credit hours / Seat time
  - Grades / testing
  - Time as constant / learning as variable
  - Degrees / class rank
  - Academic calendar
- Term: Tightly Defined
  - Semester / Quarters
- Knowledge
  - Owned by institution

Future Paradigm:

- Higher Education
  - Learner directed
  - Ability / Multi-age group
- Measurement: *(outcome based)*
  - Competency / performance
  - Outcomes / demonstration
  - Learning as constant / time as variable
  - Competencies / skills
  - Lifelong learning
- Term: Wide Open
  - 24 / 7 / 365
- Knowledge
  - Accessible to everyone

James Morrison, "U.S. Higher Education in Transition", On the Horizon, 11(1), p. 6-10, 2003
Morton Egol, New Horizons, "The Future of Higher Education", Educause Review, July/August 2006, p. 72 - 3
Arthur E. Levine, "The Future of Colleges: 9 Inevitable Changes", The Chronicle Review, October 27, 2000

PERKINS + WILL

Today and Tomorrow

Past Paradigm:

- Instructor:
  - Lecture *(stand and deliver)*
  - Content Provider
  - Lecture based / large groups
- Faculty Role: Actor
  - Professors
  - Tenure at institution
  - Lecturer
- Student Role:
  - Empty Vessel / Sponge
  - Subordinates / Individuals
  - Labs
- Brand Identity
  - Prestige of institution

Future Paradigm:

- Instructors:
  - Projects *(hybrid)*
  - Designer of learning experience
  - Self directed / individualized
- Faculty Role: Director
  - Targeted Specialists
  - Independent professional
  - Facilitator
- Student Role:
  - Knowledge Creator
  - Junior Colleagues / Teams
  - Apprenticeships
- Brand Identity
  - Forms of instruction

James Morrison, "U.S. Higher Education in Transition", On the Horizon, 11(1), p. 6-10, 2003
Morton Egol, New Horizons, "The Future of Higher Education", Educause Review, July/August 2006, p. 72 - 3
Arthur E. Levine, "The Future of Colleges: 9 Inevitable Changes", The Chronicle Review, October 27, 2000

PERKINS + WILL

Today and Tomorrow

Past Paradigm:

- Facilities:
  - "Brick" universities
  - Formal lecture halls
- Technology: Tool
- Libraries:
  - Stacks / Books
- State Funded
  - Defined campuses
- Education Providers:
  - Traditional colleges & universities
  - Non-profits

Future Paradigm:

- Facilities:
  - "Click" universities
  - Flexible learning environments
- Technology: Enabler
- Libraries:
  - Starbucks / Laptops
- Enterprises
  - Universal access
- Education Providers:
  - Companies, libraries, museums, etc.
  - For-profits
  - New brand names & hierarchy
  - Mobility / transfers

James Morrison, "U.S. Higher Education in Transition", On the Horizon, 11(1), p. 6-10, 2003
Morton Egol, New Horizons, "The Future of Higher Education", Educause Review, July/August 2006, p. 72 - 3
Arthur E. Levine, "The Future of Colleges: 9 Inevitable Changes", The Chronicle Review, October 27, 2000

PERKINS
+ WILL

Today and Tomorrow

Past Paradigm:

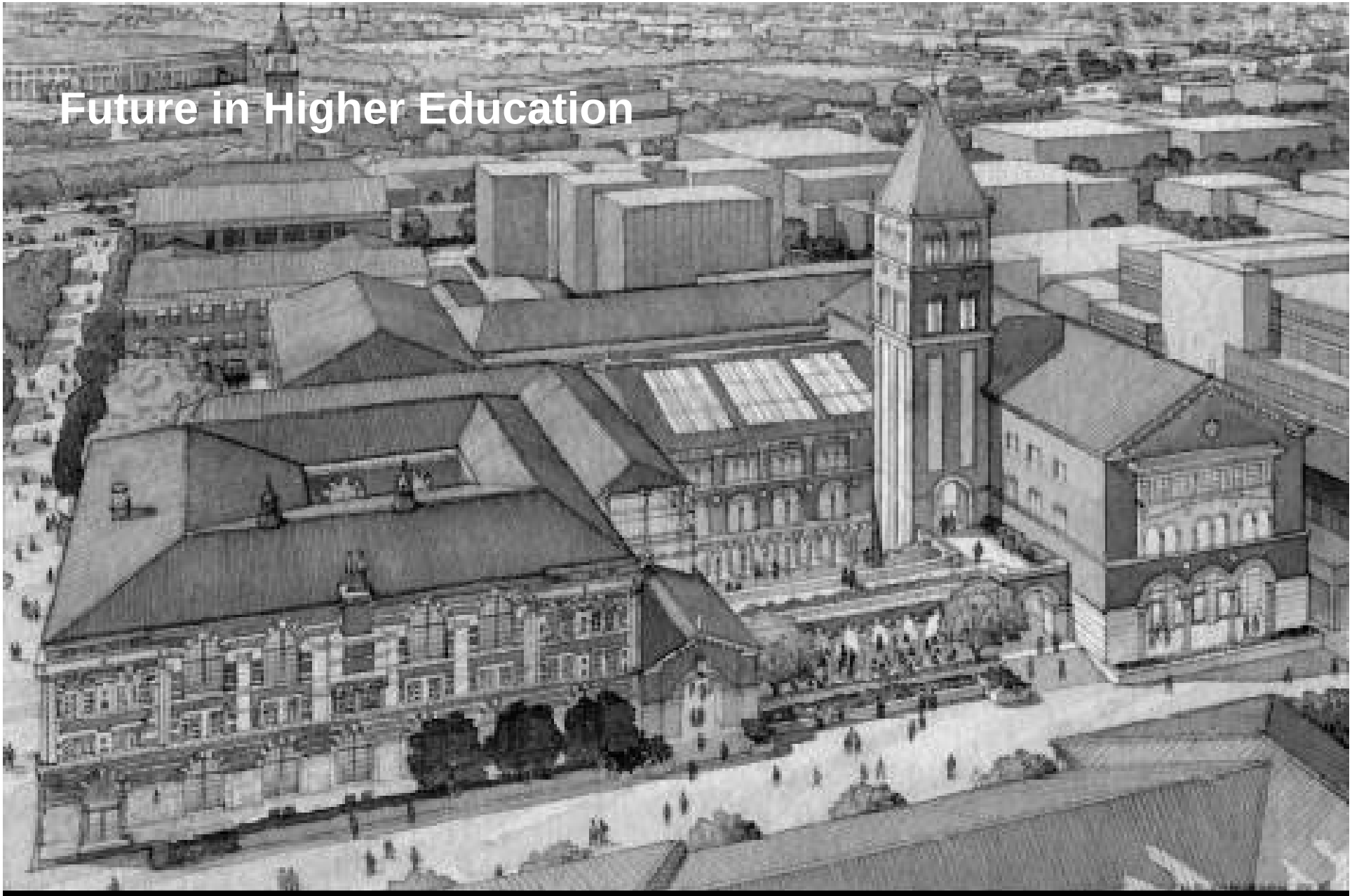
- Standards
  - Recognized degrees
  - Accreditation agencies
- Money
  - Government to institution
  - Academic freedom
- Curriculum
  - Transmission of knowledge
  - Linear pattern
  - Book-based delivery

Future Paradigm:

- Standards
  - Educational passport
  - Government bureaus
- Money
  - Government to students
  - Market driven
- Curriculum
  - Support distillation, analysis, ordering and manipulation
  - Layering of content
  - Multi-media formats
  - Customized by individual learners

James Morrison, “U.S. Higher Education in Transition”, On the Horizon, 11(1), p. 6-10, 2003
Morton Egol, New Horizons, “The Future of Higher Education”, Educause Review, July/August 2006, p. 72 - 3
Arthur E. Levine, “The Future of Colleges: 9 Inevitable Changes”, The Chronicle Review, October 27, 2000

Future in Higher Education



PERKINS
+ WILL

Future in Higher Education

Campus & Academic Life

Blending of programs

- Academic
- Recreation / Wellness
- Student Services
- Housing

Variety of activities:

- Study
- Work
- Play

On-line communities

- Myspace.com / facebook.com
- Open access wiki

Personal relationships through co-curricular activities

David Bridges, Cambridge Journal of Education, Vol. 30, No. 1, 2000,

PERKINS
+WILL

Future in Higher Education






Campus & Academic Life

More flexibility
- Drawing range of people to one space

One size will *NOT* fit all
- "Shotgun" v. "Rifle"
- Targeted subgroups

Imitate post-college life-style

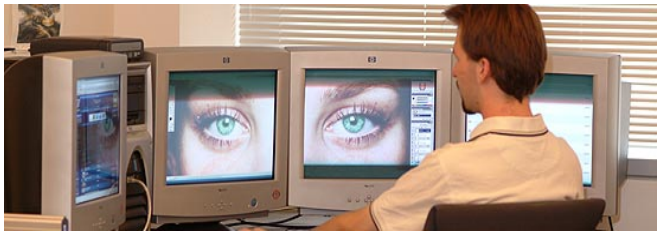
Support students with life skills
- Time management
- Leadership / Service opportunities

Engagement through Activities
- Face-to-face Interaction


anges to the Institution

PERKINS
+WILL

Changes to the Institution



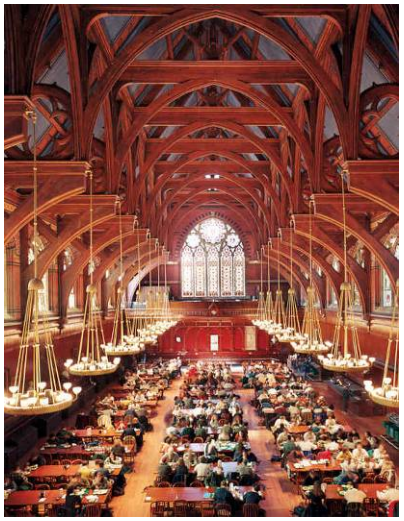
Campus Environment:

- Mix of “Brick” and “Click”
- Identity of the place
  - Multiple campuses
  - Distance learning / Franchising
  - Extending HE into life / work
  - Work-based learning / retraining
  - Work place as laboratory
- Universal access
  - Face-to-face contact “optional”
  - Trips to library “rare”
  - Universal access
  - Irrelevance of distance

David Bridges, Cambridge Journal of Education, Vol. 30, No. 1, 2000,

PERKINS
+ WILL

Changes to the Institution



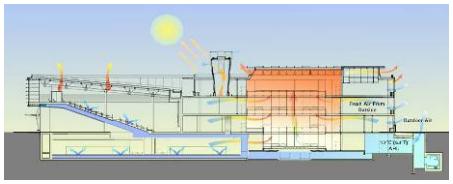
Campus Environment:

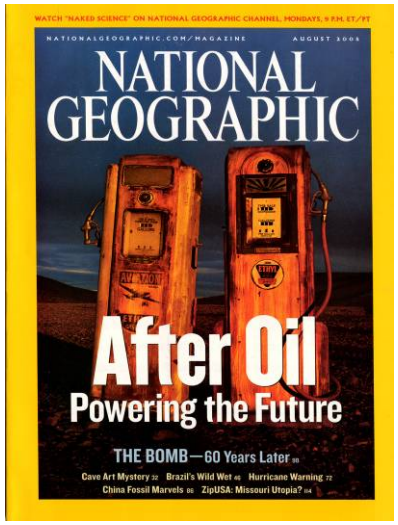
- Identity of time
  - Undefined academic year
  - 9:00am – 5:00pm?
  - Weekend seminars / Year-round sections
- Identity of scholar community
  - Multiple sites
  - Part-time / short-term / specialized staff
  - Public / private partnerships
  - Global connections
  - Independent faculty
- Identity of student community
  - Larger, non-resident, and more diffuse

David Bridges, Cambridge Journal of Education, Vol. 30, No. 1, 2000,

PERKINS
+ WILL

Changes to the Institution





Being Sustainable

Net-positive Environmental Impact

- Energy generators
- Water purifiers
- Environmentally neutral
- Cradle to cradle
- Construction Methods

Quality of Life

- Higher quality spaces & healthier environments
- Individual controls
- Daylight
- Organic foods
- Fitness lifestyle

PERKINS
+WILL

Changes to the Institution

Operational Issues:

Sustainable Design Impact:

- Central Plant vs. Dispersed systems
- Disposal vs. Recycling
- Capital Cost vs. Operational Costs
- Facility Focus vs. Quality of Life
- Individual Buildings vs. Ecosystems

Finance Impact:

- State funding vs. University as Enterprise
- Student Fees vs. Self-generation of Revenue
- Tuition Funding vs. Research

Future of the Physical Environment

PERKINS
+ WILL

Future of the Physical Environment

Campus Facilities:

Living Learning

- Student life & academic life united
- Dispersing social support spaces
  - Food services
  - Student services
  - Recreation / Fitness
- Smaller “Communities”

Campus & Community

- Separate vs. Connection
- University as Steward of Regional Economies

PERKINS
+WILL

Future of the Physical Environment

Campus Facilities:

Idea incubators

- Multi-function
- "Branded" image
  - Recruiting & retention
  - Contribute to a sense of place
- Promote Enterprise
  - Creative income sources
  - Self-generation of revenues

PERKINS
+ WILL

Future of the Physical Environment

Campus Facilities:

Merging of Programs and Needs

- Libraries and Classroom
- Unions / Recreation / Wellness Centers
- Integrated Living / Learning Centers
- Senior / Retirement Housing
- Condominiums Housing
- Non / Multi-disciplinary Facilities
- Unions and Libraries
- Retail and Academic Complexes

PERKINS
+WILL

Future of the Physical Environment

Campus Facilities:

- Campus Focus vs. Community Focus
- Bigger vs. Better
- Individual Facilities vs. Hybrids
- Ballrooms vs. Smaller Meeting
- Lecture Halls vs. Flexible Learning Environments
- Computer Labs vs. Wi-fi
- Study Carrels vs. Group Study Rooms

PERKINS
+WILL

Future of the Physical Environment

Link Facilities & Strategic Pla

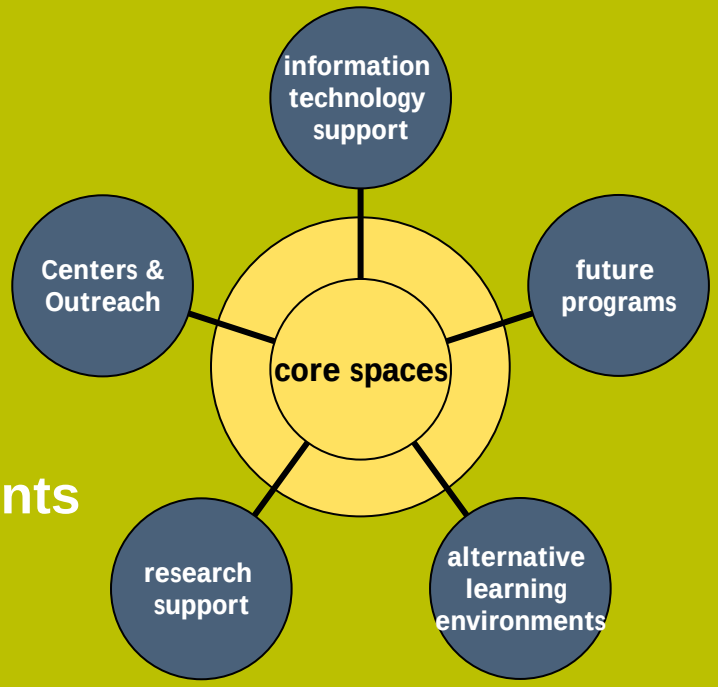
- Reinforce Brand Message and Identity
- Enhance Recruitment and Retention
- Support New Initiatives
- Enable Administrative Restructuring
- Encourage Community Interaction an Support
- Support Outreach Activities

PERKINS
+ WILL

Future of the Physical Environment

Plan for change

- Planning parameters change
- Space needs change 20-25% as mission/vision evolves
- Space utilization changes
- Information technology investments require timing evaluation



Our research indicates a 20% change in space use within a 5 year period

PERKINS
+WILL

Future of the Physical Environment

What won't change…

- Welcoming & comfortable feel
- Traditional campus "place"
- Individualized services
- Places to "chill"
- Casual interaction
- Home away from home
- Residential colleges as a half-way house between childhood and adulthood

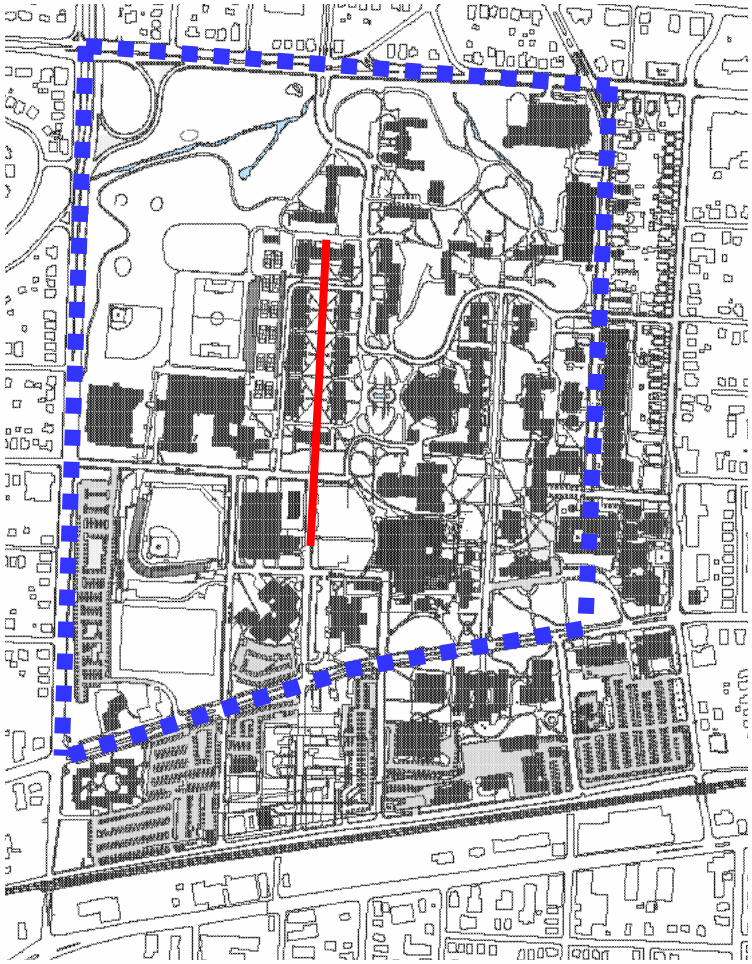
  Rich Steele, Director of Campus Center, Georgia Tech
- Bricks and mortar expression of how we treat our students

  Carolyn Farley, Director of University Center, UNC Wilmington

4. Campus and the Community

PERKINS
+ WILL

Campus and the Community

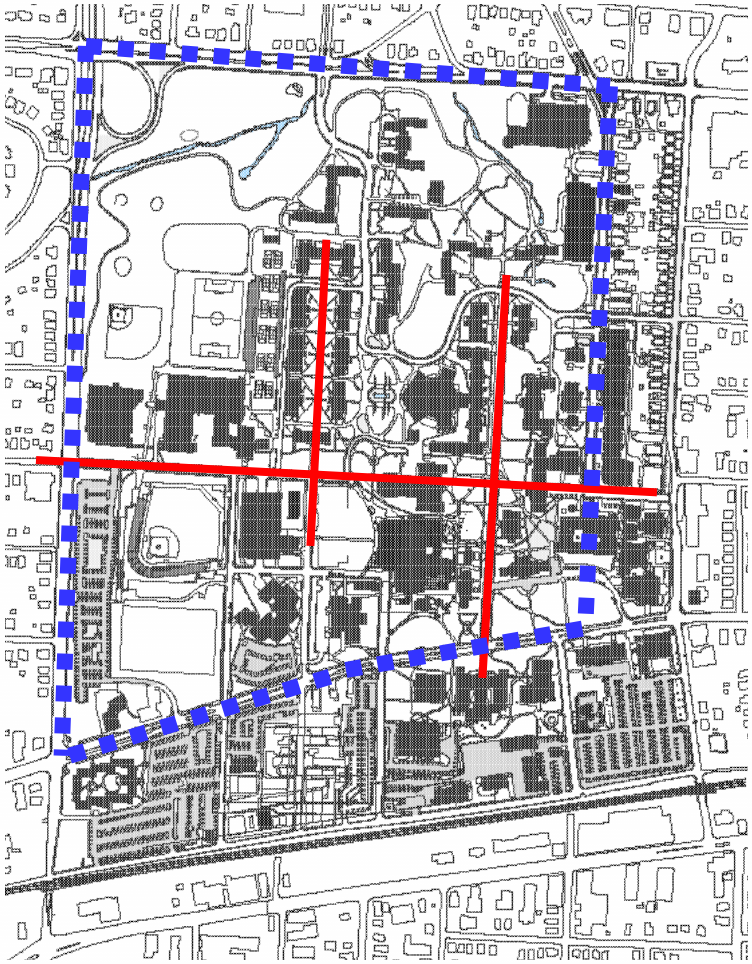


Traditional Pattern:

- Campus with Edges
- Facilities by Discipline
- One Size Fit All
- Structured
- Hierarchical
- Town v. Gown

PERKINS
+WILL

Campus and the Community

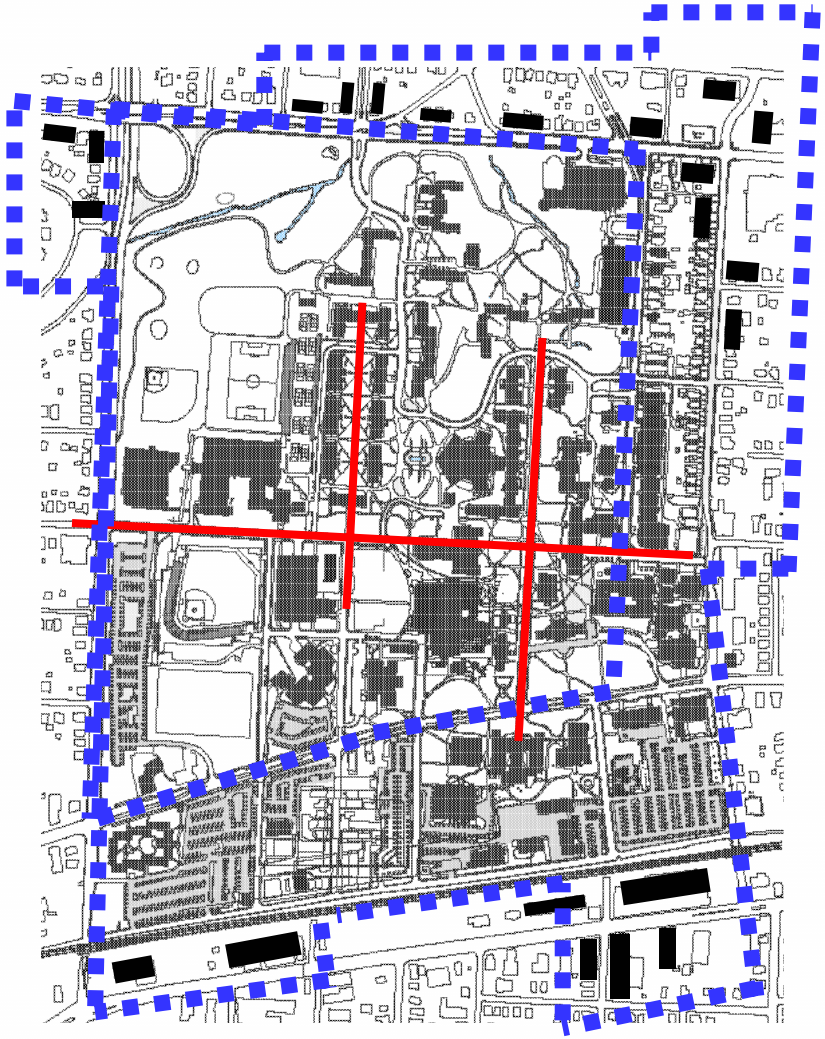


Traditional Expansion:

- Campus Pushing to the Edge
- Facilities for Collaboration
- Acknowledge the Community
- Less Structured
- Non-hierarchical
- Town meets Gown

PERKINS
+ WILL

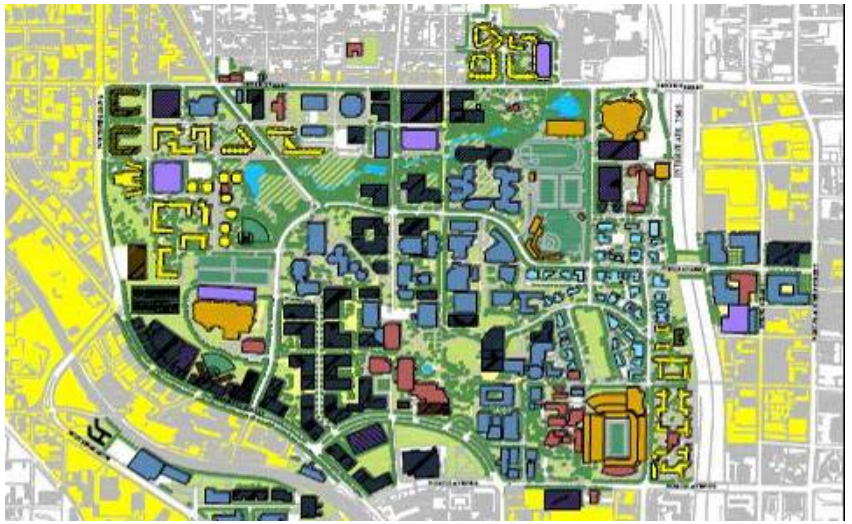
Campus and the Community



Future Expansion:

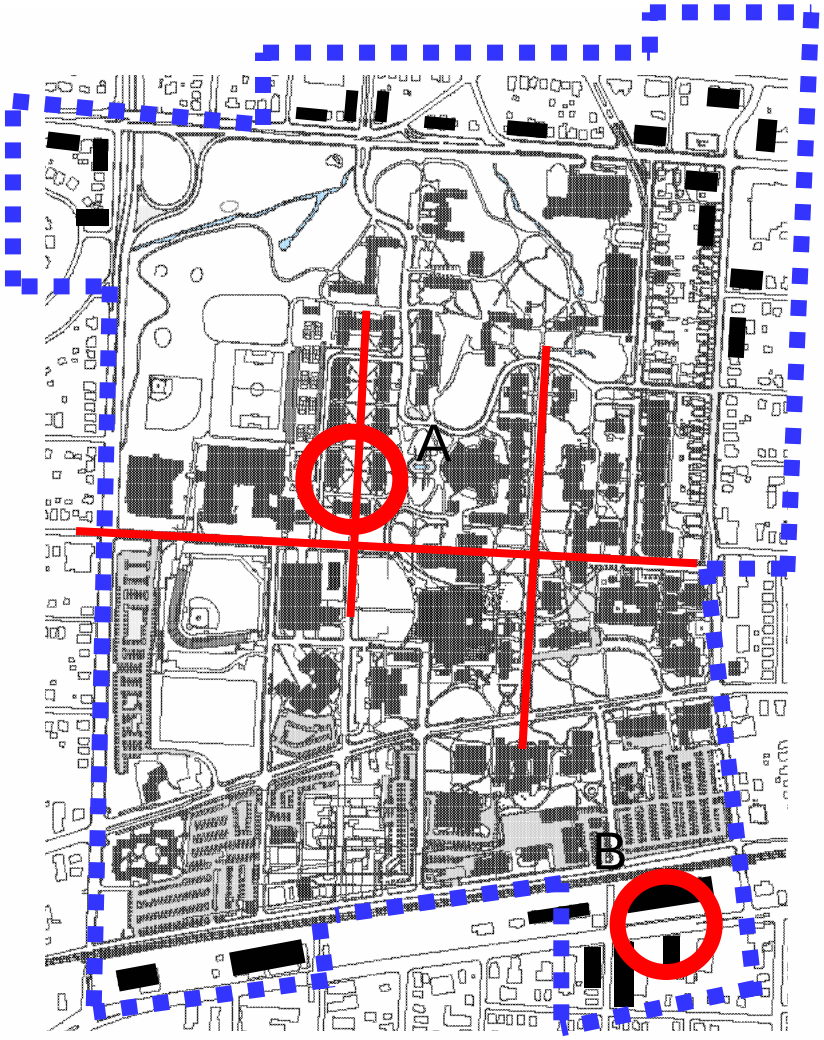
- Community Joining Campus
- Campus Outreaching to Community
- *Town = Gown*

The edges are blurring…..



PERKINS
+WILL

Campus and the Community



Common Motivations

Economic Viability

- A: Support Academic Mission
- B: Enhanced Revenues

Leadership Development

- A: Quality Teaching / Research
- B: Stability and Profit

Brand Identity

- A: Recruitment and Endowment
- B: Market Share and Image

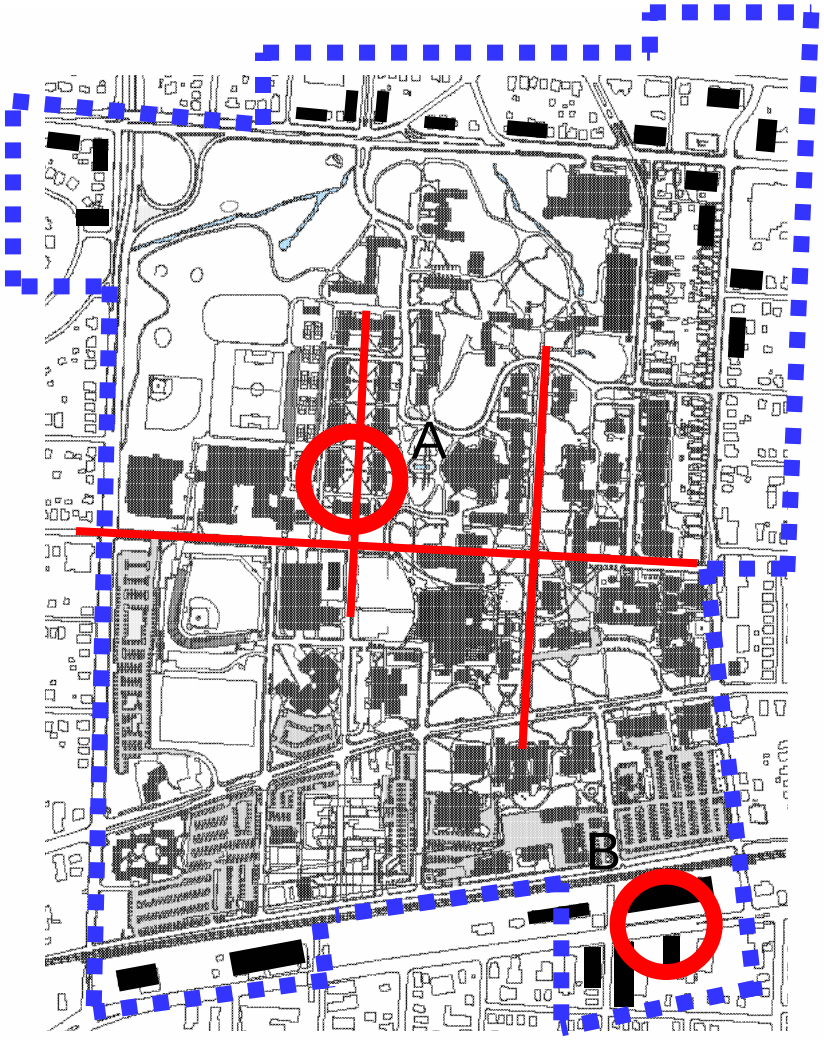
Client Management

- A: Students and patrons
- B: Customers and investors

Success: Intellectual development, prestige, economic stability, societal contribution

PERKINS
+WILL

Campus and the Community



Characteristics

A - Core Buildings (Intellect)

- Learning Environments
- Interdisciplinary and Modular
- Adaptable (not just flexible)
- Non-Assigned
- Non-Specialized Programs
- Academic and Social

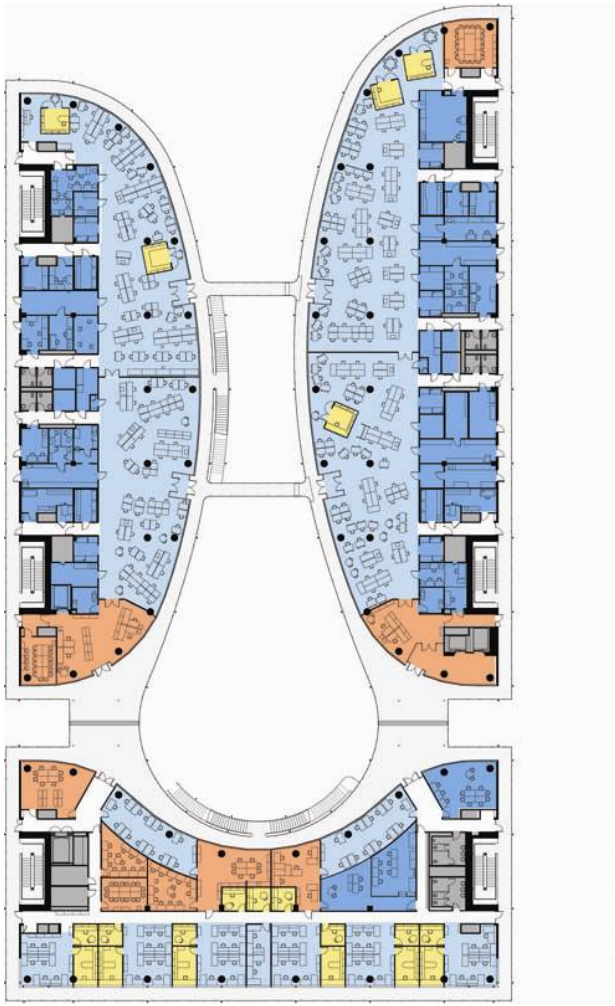
B - Edge Buildings (Enterprise)

- Revenue Generators
- Linking Academics & Economics
- Adaptable, Modular, Interdisciplinary
- Academic, Social, Research
- Access to Intellectual Capital

5. Project Example

PERKINS
+WILL

Stanford University – Clark Center



Programmatic Contents

- 245,000 GSF Learning and Research Facility
- Link between Campuses

PERKINS
+WILL

Stanford University – Clark Center

Programmatic Contents

- Multiple ‘Tenants’
  - School of Humanities
  - School of Sciences
  - School of Engineering
  - School of Medicine
- ‘Ad hoc’ space assignments

PERKINS
+WILL

Stanford University – Clark Center

Programmatic Contents

- Cross Disciplinary Teaching and Research
- Strategically placed shared resource areas

PERKINS
+ WILL

Stanford University – Clark Center

Programmatic Contents

- Wet and Dry Spaces
- Classrooms
- Coffee Bars / Social Spaces

PERKINS
+WILL

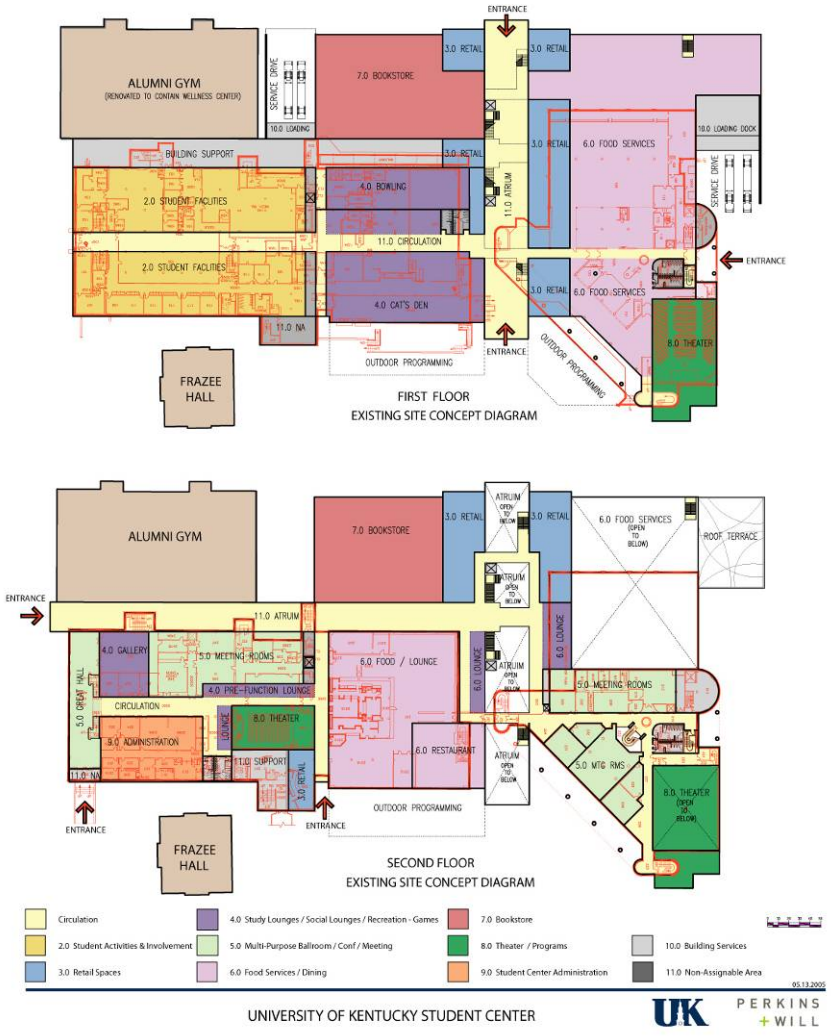
Stanford University – Clark Center

Programmatic Contents

- Strategically placed interaction areas
- Restaurants
- Outdoor Instructional Spaces

PERKINS
+ WILL

University of Kentucky – Student Center

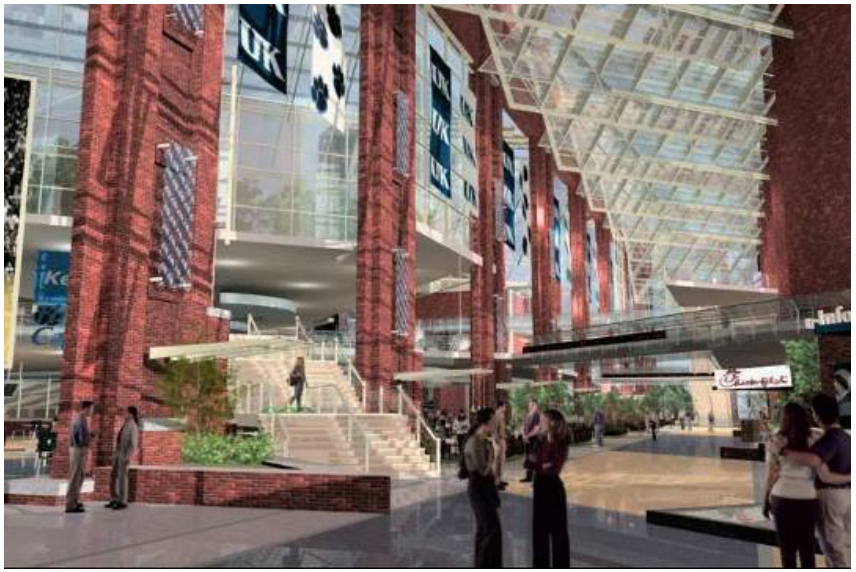


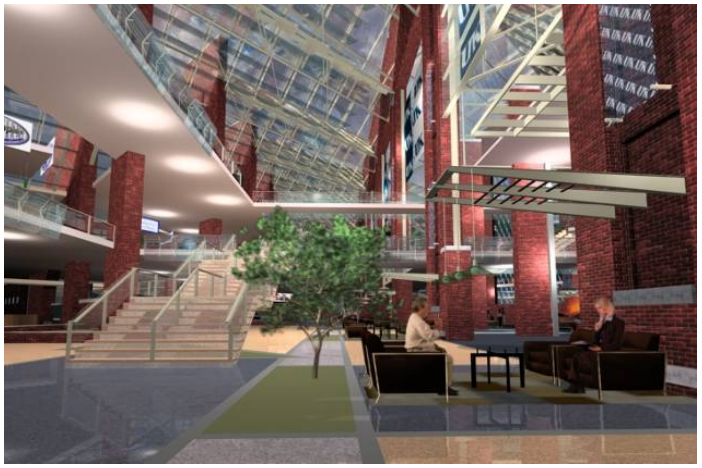
Programmatic Contents

- Campus & Community Access
  - Restaurants
  - Retail
  - Fitness
  - Entertainment
- Wellness Center
- Drive-thru Student Services
- University Hotel

PERKINS
+ WILL

University of Kentucky – Student Center





Programmatic Contents

- Campus & Community Access
  - Restaurants
  - Retail
  - Fitness
  - Entertainment
- Wellness Center
- Drive-thru Student Services
- University Hotel

PERKINS
+ WILL

University of Kentucky – Student Center

Programmatic Contents

- Linkage between
  - Lexington College Town Plan
  - UK Campus Plan
- Programs serve campus & community
- Campus Entry

PERKINS
+WILL

Contact Information

Jeff.Stebar@perkinswill.com Jeff.Ziebarth@perkinswill.com

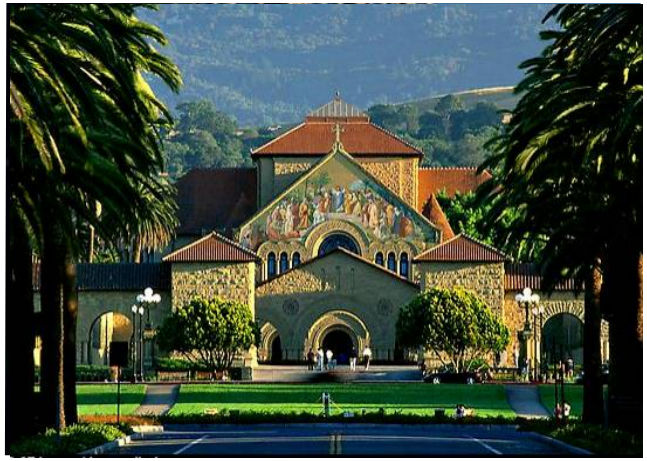
Jeff Stebar,
AIA, LEED
Principal
Perkins+Will

Jeff Ziebarth,
AIA, LEED
Principal
Perkins+Will

Panel Discussion

PERKINS
+ WILL

Next generation learning environments that inspire learning and discovery



2006 WISCAPE Conference

Higher Education Today and Tomorrow
Madison, WI

09.26.06