Inspirational Space as a Mechanism to Transform Departmental Culture

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Why Culture Change?

• In 2012-2013, only 14% of Computer Science B.S. degrees were awarded to women. (Taulbee Survey)

• And 20% of B.S. degrees were awarded to non-whites or non-Asians.
Why Culture Change?

- Diverse environments foster creativity, hard work and diligence. (9/14 Scientific American article)
- Software is transforming our world. To create a better future, everyone is needed.
- Computational jobs are varied, meaningful, in-demand and flexible.
Strategies

- Diversify Faculty
- Better Pedagogy
- Assist High Schools
- Build Community
- Emphasize Interdisciplinarity
- Transform Space
Group Exercise

• Identify a great student space at your home institution.

• What are the key elements that make the space successful?
Before and After
Timeline

- 9/12: Strategic Investment Proposal
- 2/13: Proposal Accepted
- 3/13: Planning Begins
- 9/13: Construction Begins
- 2/14: Grand Opening
Participants

- CS Students, Faculty and Staff
- Information Technology Center
- Advisory Board
- Art History Professor
- University Design Team
- Campus Planning & Design
Artwork

Kunichika

Kunisada

Kuniyoshi
Artwork Selection

• The artists learned via master-apprentice relationships
• The subjects of the paintings are relevant to student life and challenges
• The artwork allows the room to double as an art gallery, fostering interdisciplinary connections and thinking
Design Philosophy

• Personal (Japanese Studies)
• Distinctive (not generic)
• Collaborative
• Informal (dimmers)
• 24/7
• Choice
• High Quality (we care!)
High Tech Touches

- Glass whiteboards
- Strong wireless
- Wall mounted monitors
Subtle Messages

• The following are important
  – Interdisciplinary Knowledge
  – Global Understanding
  – Creativity
  – Beauty
  – Collaboration
  – Gender Diversity
Impact

- **Stewardship**
  - 15 computers (was 45), better room usage

- **Tutoring Center**
  - 50 hours per week by TAs and undergrads

- **Recruitment**
  - Students and faculty

- **Community**
  - Group projects, review sessions
Impact

• Strengthened Internal Relations
  – Kyoto Prefectural University luncheon
  – President’s Advisory Council
  – M.S. independent study project

• Strengthened External Relations
  – Homeschool Hack-a-thon
  – Big Sky Developer’s Conference
  – Montana Programmers Career Night
Impact

• Grand Opening
  – President
  – Provost
  – Dean
  – MSU Dignitaries
Funding

- 75K: MSU Strategic Investment Proposal
- 25K: College of Engineering
- 25K: Computer Science Department
Group Exercise

• What funding opportunities could you pursue?
Surprises

• More expensive than expected
• More time-consuming than expected
• More complex than expected
• More rewarding than expected
Lessons Learned

• A raised floor is unnecessary (25K)
• Student input is important
• Artwork is crucial
• A vision is important
Follow-On Projects

- EPS 259 Remodel
- Software Factory
- Graduate Student Office
Group Exercise

• Assume you can remodel one room in your organization
  – Which room would you choose?
  – Why would you choose that room?
  – What can you do to improve the room?
Future Directions

- Measure student success
- Measure impact on diversity
Discussion