

# Inspirational Space as a Mechanism to Transform Departmental Culture

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February 5, 2015

# 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

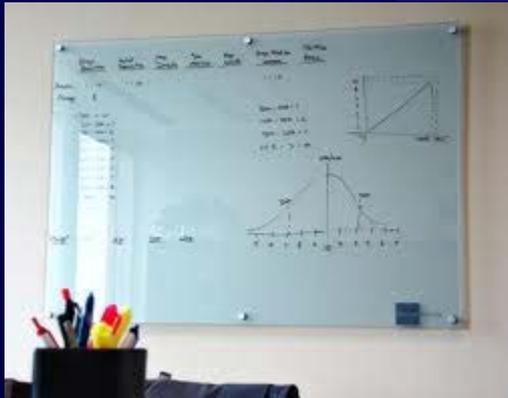
- The artists learned via master-apprentice relationships
- The subjects of the paintings are relevant to student life and challenges
- The artwork allows the room to double as an art gallery, fostering interdisciplinary connections and thinking

# 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

