UNIVERSITY OF PITTSBURGH

www.ischool.pitt.edu

School of
Information Sciences

Building Our Future Together

The iSchool at Pitt

July 14, 2011

Meeting Outline

- iSchool Mission

- Trends & Projections

- Vision

- Strategic Directions

- Investment Opportunities

- Transformative Potential

Stability in the iSchool Mission

The Mission of the School of Information Sciences is to support and advance the broader education, research, and service mission of the University by educating students, furthering knowledge, and contributing our expertise to advance humankind's progress through information.

This mission is achieved through specific actions:

• Providing a high-quality undergraduate program in Information Science

• Offering superior graduate programs in Library and Information Science, Information Science, and Telecommunications

• Engaging in research and scholarly activities that advance learning through the extension of the frontiers of knowledge and creative endeavor

• Cooperating with industry and government to transfer knowledge

• Extending our expertise to local communities and public agencies to contribute to social, intellectual, and economic development in Pennsylvania, the nation, and the world.

Interpretation of the iSchool Mission

To conduct research that advances our understanding of information and knowledge in all forms and across all operations; and to produce professionals who can guide individuals, organizations and society in the use of information to the betterment of humanity.

Shifting Sands of the iSchool Domain*

* Word cloud extracted from iSchool's NSF workshop report on digital library research horizons, created by Steve Griffin (NSF)

Employment Projections 2008-18*

- Despite slight decrease forecast in real GDP growth (2.4% / year),

- High demand professions align well with the iSchool
  - Software applications engineering
    - 218K job openings, 34% growth
  - Networking & communications
    - 208K job openings, 53% growth
  - Computer & information systems managers
    - 97K job openings, 17% growth
  - Librarians, curators, and archivists
    - 134K job openings, 9.4% growth

iSchool Vision

- Educate a new breed of information professional, informed (but not constrained) by tradition
  - Technologically literate
  - Organizationally competent
  - Socially conscious
  - Ethically grounded

- Shape a new tradition
  - SIS was one of 5 architects of the iSchool movement
    - Syracuse, Michigan, Washington, & Drexel
  - Now an international organization
    - 22 US universities
    - 2 Canadian universities
    - 5 European universities
    - 2 Asian universities

iSchool Vision, cont'd

- Examine how information technologies transform society

- View *information* as an emergent, holistic academic discipline in its own right

- See the elephant for more than its components

TECHNOLOGY   ORGANIZATION

SYSTEMS   PRESERVATION

ANALYSIS   POLICY

Refining the iSchool Vision

Emerging Configurations of the Virtual and the Real

hosted by the School of Information Sciences, University of Pittsburgh
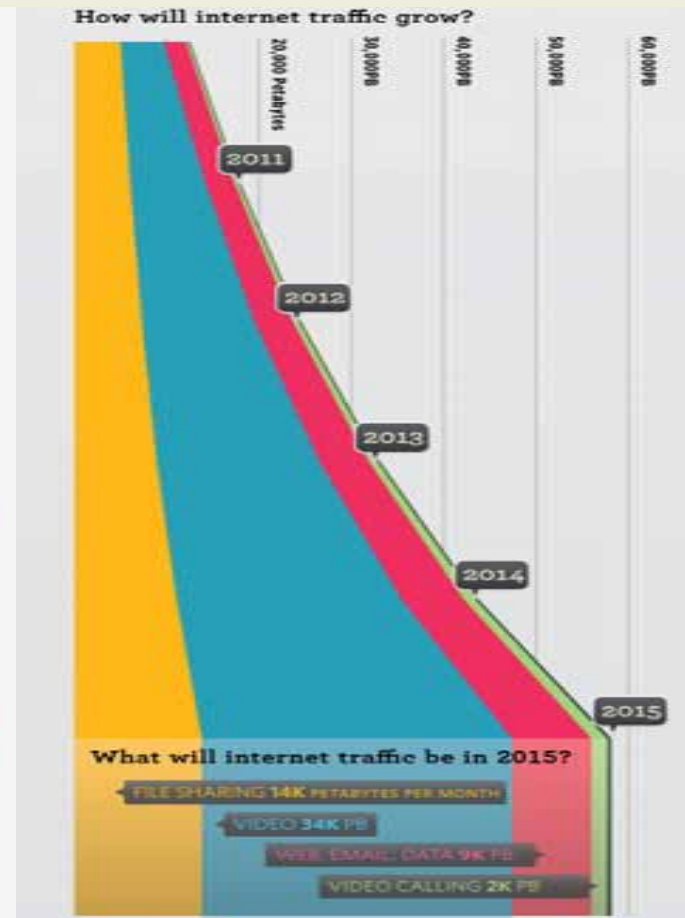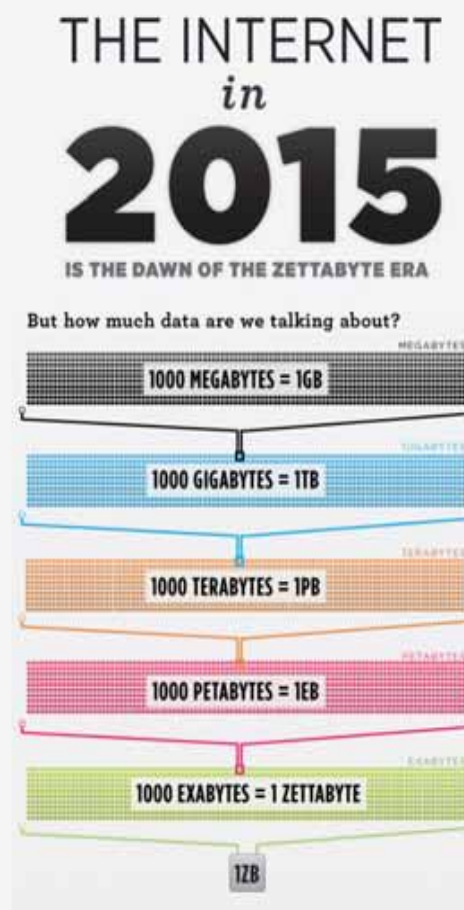
*SIS Professor Geoffrey Bowker, 2011

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Why Invest in the iSchool?
We are Uniquely Positioned to Educate Professionals for this Future

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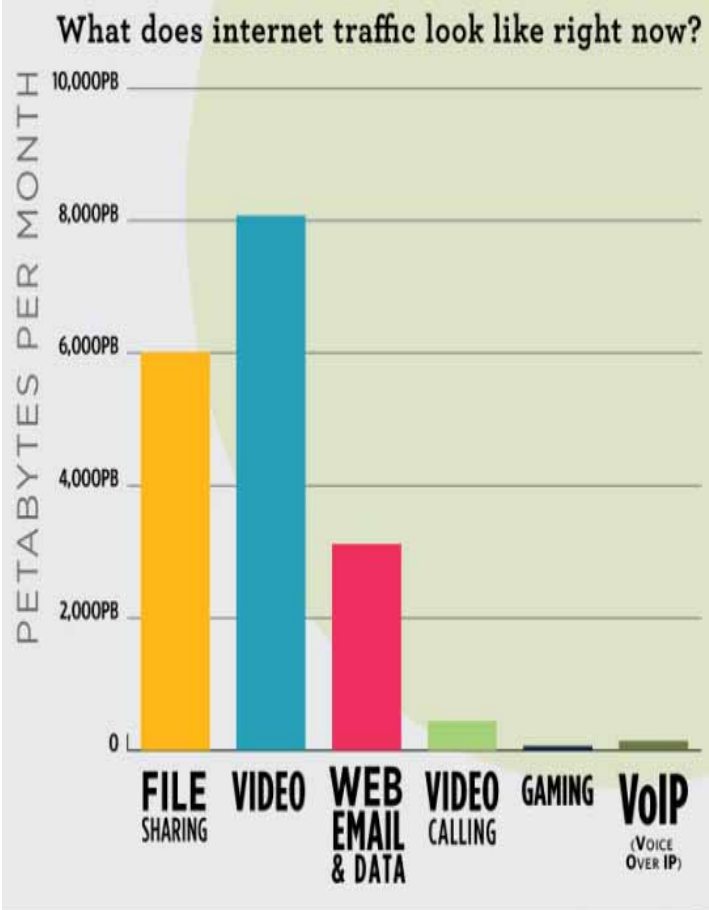
Why Invest in the iSchool?

Technology

Design

Analysis

Systems

Networks

Data

Infrastructure
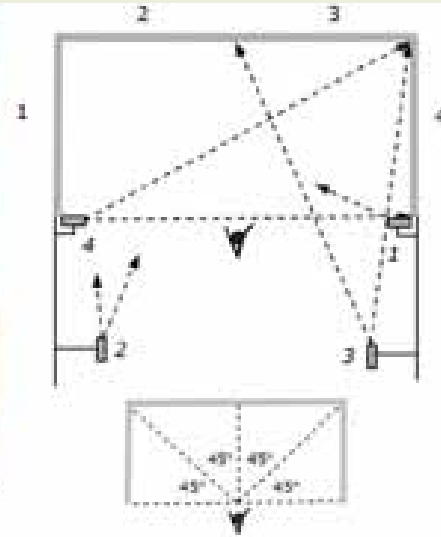
People

Society

Culture

Economics

Politics

Law

Ethics

Source: SIS PhD graduate Jeffrey Jacobson (PublicVR), Laboratory prototype in SIS building and Virtual Egyptian Temple at CMNH

Microsoft Research's Perspective

"MSR is very interested to develop a longer-term relationship with the iSchools… We feel **the iSchools have the ability to shape and positively impact the future of information management** – and we're optimistically hoping to engage with your schools to see how we might be able to work together to map the future for such areas as data analysis, data visualization, data mining/business intelligence – in service to eScience/eResearch, digital humanities, and even the private sector. It is our stance that **the iSchools are uniquely positioned to address these challenges**, based both on their rich history and experience in this area and with their special multi-disciplinary perspective."

Lee Dirks
Director of Education & Scholarly Communication
Microsoft Corporation

Pitt Collaboration

SIS collaboration diagram with:
- ULS
- History
- Art History
- Health & Rehabilitation Sciences
- Dental Informatics
- Computer Science
- Medicine
- Engineering
- GSPIA
- Business
- UCIS
- GSPH
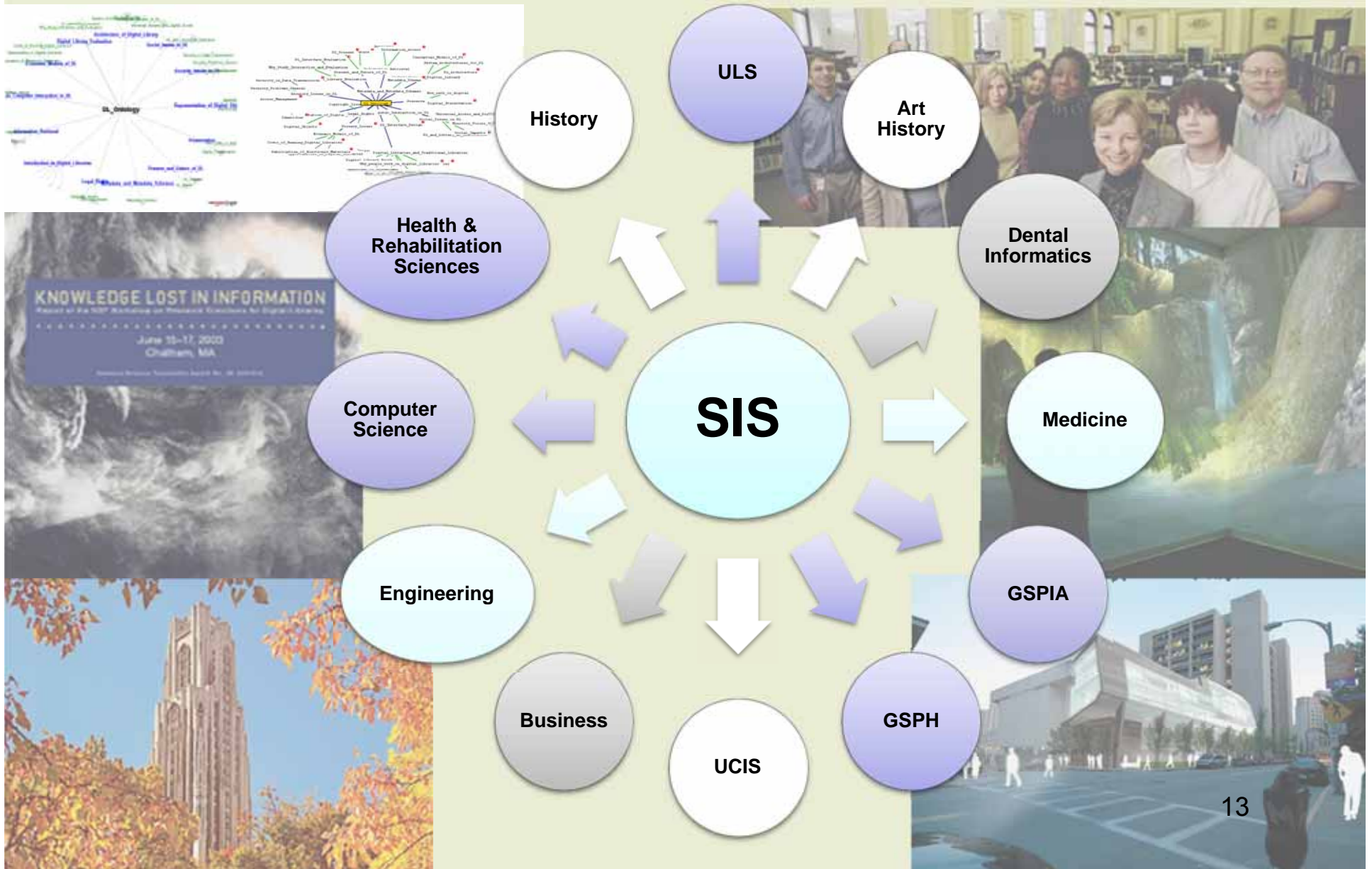
International Collaboration
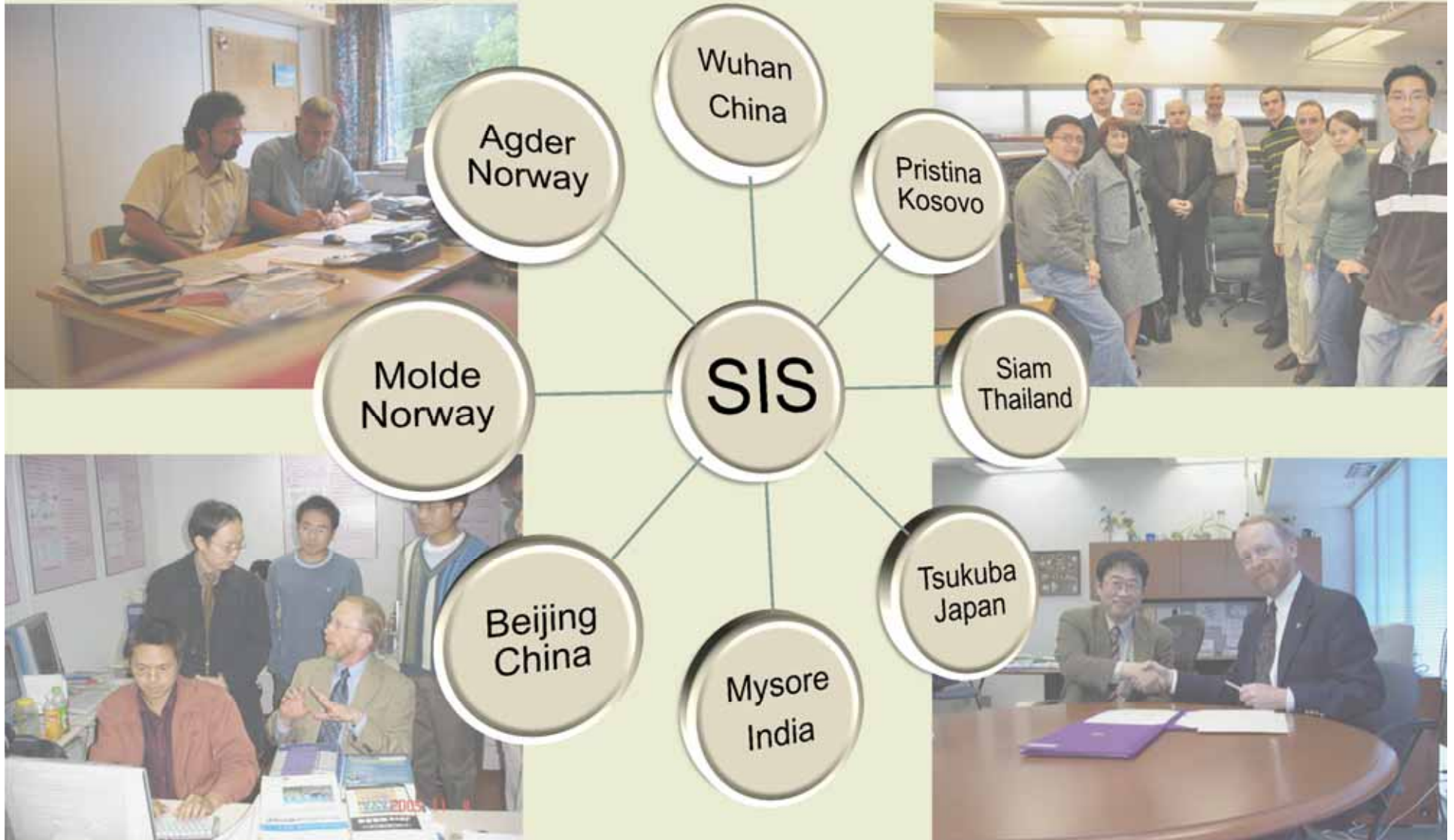
iSchool Strategic Directions

- 2006 reorganization focused on 3 goals
  - Build financial strength for the future
  - Foster intellectual vitality for our community
  - Provide strategic leadership for our professions
- 2012 strategic plan adds a 4th goal
  - Interpret and articulate the Information School vision and mission
- 2016 vision (in progress) will shape the next 5 years
  - Enrich the undergraduate experience, expand the curriculum, and increase the enrollment (responding to employment projections)
  - Sustain Master's education tailored to the career professional
  - Build signature strengths at the PhD level
  - Develop global reach and cultural awareness
  - Lead the iSchools in diversity initiatives (i3)

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iSchool Strategic Plan

- Review & revise degree structures and curriculum in light of the emerging vision
  - Provide the tools, training, and infrastructure required for educational programs that prepare individuals for roles as information professionals and scientists.

- Provide tools and infrastructure to implement research of strategic interest
  - Reconfigure the 3rd floor from a branch library of ULS to collaborative research and education space for SIS faculty and students

- Represent the profession and science in public, professional and scientific forums in such a way as to advance the vision, mission, and strategic goals of the school.
  - Articulate the driving questions of the iSchools that require the attention of a diverse group of information-focused scholars

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iSchool Roadmap

iSchool Roadmap timeline chart with phases (2006 Re-Org, 2009 Exploration, 2012 Integration, 2015, 2018 Transformation).

Stages: Experimenting with iSchools | Harvesting lessons learned | Redefining Pitt's iSchool | Leading in scholarship

Education — Educate information professionals on the design, evaluation, and management of information in all forms and contexts
- Accreditation: •Middle States Review •ALA reaccreditation
- Delivery: •Panopto •Asynch Web •Beijing/Pitt joint Web course (Tele) •MLIS blended courses •FastTrack review •Reconsider scope of online education
- Curriculum: •Experiments with common intro course •Formalize tracks •Survey employer needs •Expand outside-the-classroom experiences

Research — Advance human potential through basic and applied information-related research
- Developing signature strengths: •Secure Information Systems •Adaptive Hypermedia •Records Management •Cyberscholarship •Web Science •Identify strategic cohort of Pitt partners
- Interpreting societal needs: •Working Memory •Values in Design •"New Configurations" NSF workshop •iSchool vision

Infrastructure — Provide educational and research facilities to support the scholarly endeavors of iSchool faculty and students
- Virtual resources: •Web 2.0 •Cloud Computing •Mobile computing
- Physical facilities: •CSSD network •4th floor classroom renovations •8th floor online classroom •8th floor laboratories •Expanded research space •Reprogram space for collaborative engagement

Administration — Provide administrative services that advance the achievement of the iSchool vision and mission
- Governance: •SIS Council •Program-based organization •Support for collaborative research
- Building a Unified School: •Policy reviews •Centralized fund raising •iSchool Colloquia •Data-driven admin •iSchool-centric policies
- Process Facilitation: •Research Interest Groups •Process mapping •Dean-funded post-doc •Chief of Staff •Research-funded post-docs

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iSchool Investment Opportunities

- ## Band-Aids
  - Incremental funding for important but near-term needs with little potential for transformative, long-term impact
    - Student scholarships, awards, fellowships

- ## Modernization
  - Updating and repurposing existing facilities to better serve existing programs
    - Transform 3rd floor from branch library to collaborative research and education space

- ## Transformation
  - Establishing a new trajectory for the iSchool that reflects its growing impact on society and centrality to the emerging role of the university
    - Build a new *Institute for the Advancement of Information Architecture and Interactive Arts* (IA^3) as a home for the iSchool, a center for collaborative research in digital humanities, computational social science, and other information-intensive research endeavors

iSchool Band-Aids… Focus on the Here and Now

- Make graduate education more affordable
  - Increase student scholarship support

- Assist graduates in securing their first position
  - Enhance career services advisement

- Increase breadth of student encounters
  - Establish fellowships for visiting scholars

- Sustain emphasis on diversity
  - Support for iSchool Inclusion Institute (i3)

- Foster commitment to service
  - Facilitate community service outreach activities performed by students and supervised by faculty

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iSchool Inclusion Institute…
building tomorrow's faculty today

iSchool Modernization…
Get More out of What We Have

- Leverage intellectual resources
  - Leverage faculty research with post-docs, visiting scholars, and related support personnel
  - Develop *embedded informationist* intern positions for research teams on campus
  - Provide consulting services to Pitt researchers on information management issues (e.g., the mandated NSF Information Management Plans)

- Repurpose physical resources
  - Complete renovation and refurbishment of 8th floor interactive learning spaces
  - Close the IS Library on the 3rd floor and reconfigure it for collaborative research and student engagement
  - Construct an undergraduate learning center

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iSchool Transformation…
Recognize the Power of Place

Pitt's iSchool home
- Inhospitable to collaboration
- Leaks when it rains
- Poor thermal control and ventilation
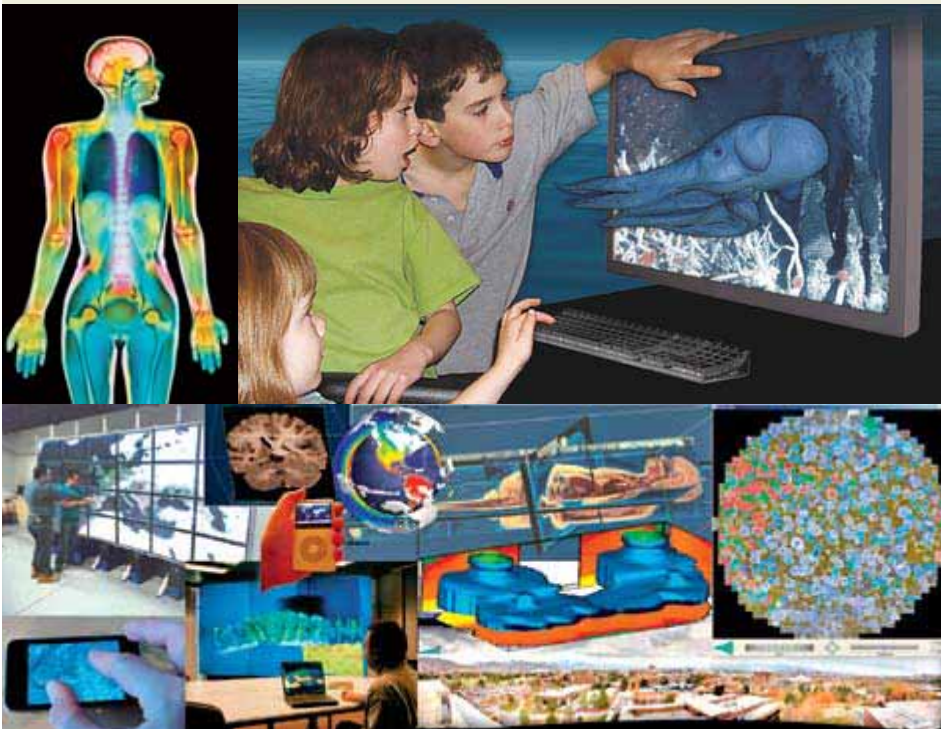- Out of sight and out of mind on the corner of campus

PSU's iSchool home
- Inviting to collaboration
- Reconfigurable spaces
- Modern environmental controls
- Near the center of campus

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Transformative Gift

$25-50M: Design and develop state-of-the-art facilities conducive to the creation, analysis, and use of immersive, information-rich environments.

Science Paradigms

- Thousand years ago: science was **empirical**
  describing natural phenomena

- Last few hundred years: **theoretical** branch
  using models, generalizations

$$\left(\frac{\dot{a}}{a}\right)^2 = \frac{4\pi Gp}{3} - K\frac{c^2}{a^2}$$

- Last few decades: a **computational** branch
  simulating complex phenomena

- Today: **data exploration** (eScience)
  unify theory, experiment, and simulation
  - Data captured by instruments or generated by simulator
  - Processed by software
  - Information/knowledge stored in computer
  - Scientist analyzes database/files using data management and statistics

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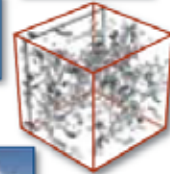
Prognosis on Campaign Prospectus

Current prospects are insufficient to support an iSchool Campaign goal beyond $10 million.

Realizing the iSchool's potential will require alternative sources and more creative approaches.
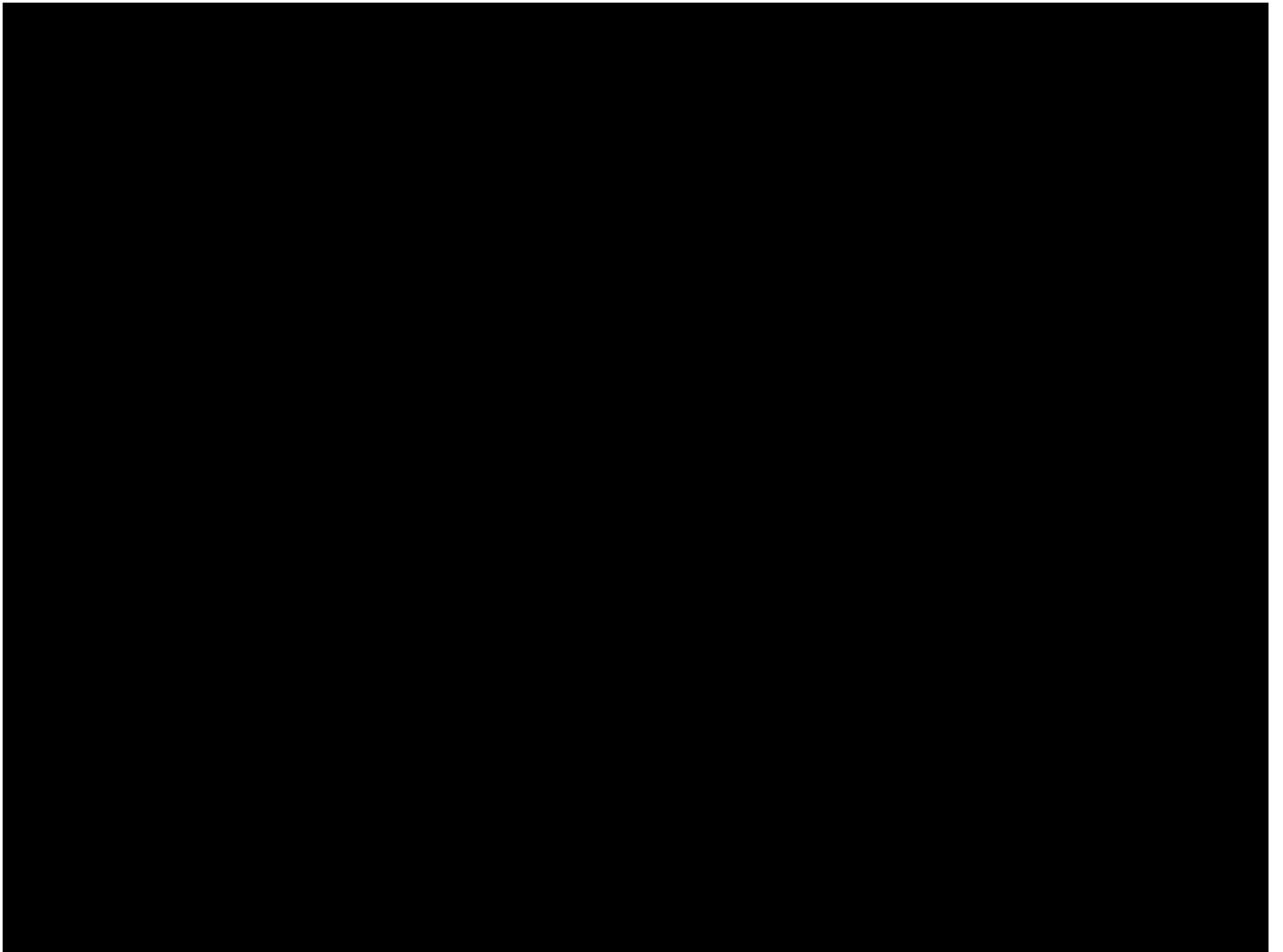
Conclusion

The iSchool may well be at the vanguard of and a bellwether for transformative change in higher education.

- What other discipline impacts every other discipline so fundamentally?
  - What is its proper place in the university?
    - Who will invest in its future?

Why Not Invest in the iSchool?

"[Pitt is committed to making additional academic investments ... tied to the level of quality that must be maintained ... to remain competitive as a ... higher education."

Prof. Peter Brusilovsky is ranked #d by Mitric ... Academic Search among ... Computer Science ...

http://academic.research.microsoft.com/Organization/737/university-of-pittsburgh

Our Competition

Washington

Syracuse

Our Competition, cont'd

UC Berkeley

Drexel

More Competition

UC Irvine

UNC

Still More Competition

Michigan

Indiana

Ga Tech

Illinois