SIS Board of Visitors
Meeting Summary
October 12-13, 2015

Board members present included:

Raheem Beyah	Gary Byrd	Claudia Gollop
Mary Frances Cooper	Charles Isbell	Robert Strauss
Alfred Moyé, Chair	Keith Schaefer	Lynette Yarger
James Williams	Patrick White	Elizabeth Yakel
James Matarazzo	David Holtzman	Roger Glunt

Laurie Kirsch and Juan Manfredi, representing the Provost's Office

Debbi Gillotti (Dietrich School of Arts & Sciences BoV member) participated by teleconference on October 13.

School of Information Sciences faculty and staff present included:

Sheila Corrall	Ronald Larsen, Dean	Carolyn Loether
Debbie Day	Robert Perkoski	David Tipper
Martin Weiss	Sandra Brandon	Jeff Lawson
Peter Brusilovsky	Sharon Bindas	Prashant Krishnamurthy
Mary Kay Biagini	Paul Munro	Kostas Pelechrinis
Roger Flynn	Wesley Lipschultz	Alka Singh
Bre Evans	Eric Hatleback	Daqing Hé
James Joshi	Michael Depew	Leona Mitchell
Marek Druzdzel	Vladimir Zadorozhny	Michael Spring
Amelia Acker	Richard Cox	

Dietrich School of Arts & Sciences and Department of Computer Science faculty and staff present included:

Taieb Znati, Chair	Daniel Mossé	Rami Melhem
Jonathan Misurda	Alexandros Labrinidis	Panos Chrysanthis
Michele Colvard	Bruce Childers	Adam Lee
Jan Wiebe		

Chair Alfred Moyé opened the meeting at 9:00 am, welcoming those in attendance, and, in particular, those faculty members participating in the meeting from the Computer Science department. He then asked **Dean Larsen** to introduce the agenda and to review progress since the last Board of Visitors meeting. Dean Larsen noted that this meeting's agenda is structured in 2 phases: 1) Monday's agenda will review progress since the last Board meeting, introduce the BoV to the Computer Science department, and provide an opportunity for a review of activities designed to contribute to a proposal for a new school of computing and information at Pitt; 2) Tuesday is reserved for the Board's discussions and development of their report to the Provost. The Provost will join us from 1:00 – 2:00 on Tuesday for a closed session to receive the Board's informal report and recommendations.

As this is a meeting that spans the interests of SIS and CS, representation from the Dietrich School of Arts & Sciences BoV was desired. Keith Schaefer chairs the Dietrich BoV and Alfred Moyé serves on the Board. They recommended inviting Debbi Gillotti to the SIS BoV meeting. Debbi was unable to attend in person but participated in the Tuesday discussions by teleconference. Debbi is also a Pitt trustee.

Dean's Update

Highlights:

- This year, SIS has two new staff and one new professor of practice
    - Bre Evans, (Marketing & communications)
    - Alka Singh (Internship coordinator)
    - Leona Mitchell (Professor of Practice)
- Wei Jeng won one of two iSchool 2015 CLIR doctoral fellowship awards ($50K provided from AW Mellon grant); the other one went to a PhD student at Drexel. These awards are part of a SIS-run fellowship program supporting the Committee on Coherence at Scale for Higher Education (http://coherence.clir.org/). The multi-year program will award a total of 10 such fellowships.
- SIS hosted 17 visiting scholars in the 2014-15 academic year (10 are currently here)
- The fifth cohort of i3 scholars numbered 26
    - Demographics
        - They came from 22 universities and colleges
        - In 14 states
        - And included 18 female students
    - The i3 program was selected for the Chancellor's 2015 Affirmative Action award

- 23 i3 scholars (32%) are currently enrolled in graduate programs
    - Two are currently in PhD programs
- Certificates of Advanced Study (CAS) are now available (post-baccalaureate & post-Masters). Each one requires 15 credits of course work:
    - Big Data Analytics
    - Information Security
- A complete MLIS degree program is now available through Pitt Online
- David Tipper was promoted to Full Professor this year
- Amelia Acker moved to the tenure stream position opened by the departure of Brian Beaton
- Liz Lyon (visiting faculty member) developed and delivered new courses in *Research Data Management* and *Research Data Infrastructure*
- The Bits & Bytes café opened in September on the first floor of the SIS building
- The iSchool consortium has grown to 65 members, with more applications pending. The organization is now legally incorporated in DC as a 501c3. The 2016 iConference will be hosted by Drexel University in Philadelphia. The 2017 iConference will be hosted by Wuhan University in Wuhan, China.
- Graduate enrollments – (data was provided in a separate document)
    - INFSCI and CS enrollments continue to rise (most students are coming from China)
    - LIS enrollments continue to decline nationwide, although the rate of decline has abated.
    - The TELE enrollment has remained fairly stable for the last few years, with most of the students coming from India
    - Overall, SIS enrollment is slightly lower than last year but remains fairly stable
- A summary of external funding was provided in the prepared Board documents
- The University and SIS have been building capacity to attract corporate funding but this work is still in its early stages. Board discussion suggested targeting corporations with a global footprint in addition to those in the greater Pittsburgh region. A Board member also suggested soliciting endowments for new assistant professors as another means of attracting top candidates.
- Last year's meeting focused on vision and identity, drawing on the energy and enthusiasm of a broad constituency.   Shortly after that meeting the Provost met

with SIS and CS and invited us to develop a proposal to consolidate the strengths of both organizations into a new academic unit.

- As the discussions have proceeded, other units across campus have expressed interest in the new academic unit being planned and are now engaged in the planning process, as well. Four committees are contributing to the proposal.

    o Education & Curriculum

    o Research & Collaboration

    o Organizational Structure

    o Vision & Identity

    By the end of this academic year, we anticipate the major components of the proposal to be in place.   During the summer, this material will be used to prepare the formal proposal to the University, which will be submitted for review and approval in the fall.   The proposed administrative launch date for the new academic unit is January 2017, with the first cohort of new students being admitted for the Fall 2017 term.

The University has released its new planning document, "The Plan for Pitt: Making a Difference Together," online. The new academic unit to be proposed will directly support several of the highest priority goals expressed in that plan. One of the planning topics addresses diversity. The Board noted that, properly conceived, *diversity* includes diversity of thought, experience, and perspective as well as ethnicity, race, and sexual orientation.

Introduction to the Computer Science Department, Taieb Znati (Chair)

The CS department strives to deliver a program of excellence in teaching, research and service, that includes:

- Well founded knowledge and understanding of the science of computing and computing systems

- High-quality, technically current instruction and leading-edge research opportunities

The CS department was created in 1966; it now numbers 20 full-time research-active faculty; 4 full-time lecturers; 331 CS undergraduate majors.; 44 bioinformatics students; 239 engineering majors (with ECE); 66 PhD students; and 36 MS students. The department offers BS, BS/MS, MS, and PhD degrees.

- CS faculty deliver 12,000 credit hours (i.e., 4000 course seats) every year through regular CS courses and service courses more broadly available.

- Enrollments are growing and (unlike earlier trends that were abruptly reversed) this seems to be sustained growth that is likely to continue.   Motivating domestic students to pursue a graduate degree in CS still remains a challenge, largely due to

the high demand and relatively high compensation offered to students with a BS in computer science.

- o OBSERVATION: Unlike some other major research universities, Pitt expects our research-active faculty to teach at the undergraduate level, as well. This is considered a distinguishing feature of Pitt.

- Undergraduate student diversity enrollment needs to be improved, and the highest proportion of graduate students is international. Domestic enrollment in the graduate programs needs to be increased.

- o OBSERVATION: Recruiting is a bit complicated because undergraduate students are recruited by the University Office of Admissions and Financial Aid (OAFA) and not the program or school. SUGGESTION: Work more closely with OAFA to help them address enrollment issues particular to CS and IS.

- o RECOMMENDATION: Consider admitting undergraduate students to CS and IS earlier, perhaps as early as their freshman year.

- CS research areas and funding levels were summarized in Dr. Znati's slide presentation; a copy is available on the BoV web site.

- Computing is increasingly used to address a growing array of complex, contemporary issues, including healthcare, climate change, energy, sustainability, etc. Recently, this has garnered press coverage under the rubric of "Big Data." Increasingly, progress in these areas requires both in-depth knowledge of the foundations of computer science (e.g., algorithms, data structures, etc.) and expert-level understanding of the application domain.

- A Board member asked Dr. Znati to distinguish Pitt CS from CMU. Taieb noted that CMU's School of Computer Science is among the very best in the world, and that we partner and collaborate with them, particularly in areas where Pitt expertise is complementary to CMU strengths (and vice versa).

Vice Provost Juan Manfredi noted that the Chancellor and the Provost envision a new academic unit that becomes the best in the world in select areas of computing and information sciences where Pitt can excel. Co-location of relevant faculty and resources will be a high priority for the next facilities plan. Vice Provost Manfredi further observed that the Chancellor is very well informed on the significance of computing and information science to progress and sees a very substantial opportunity for Pitt. Faculty members considering particular research strengths for the new academic unit have proposed "contextually-situated computing" as an overarching theme.

Reports from each of the SIS program chairs (Perkoski – BSIS, Brusilovsky – GIST, Tipper – TeleNet, and Corrall – LIS) are available on the BoV web site. The need remains to expand the undergraduate program curriculum, building on very substantial progress experienced over the past couple years using the Professor of Practice model. One Board member

suggested a branding statement "We solve problems for the public good," reflecting on the growing internship and field placement activities of the School. Each of the graduate program chairs noted the current challenges in recruiting domestic students to graduate study, and further observed that the university's high out-of-state tuition puts our online programs in a particularly noncompetitive position.

Lunchtime presentations on collaborations & partnerships

Digital Scholarship Services – Nora Mattern, Matt Burton

A new Digital Scholarship Commons (DSC) has been established in Hillman Library on the ground floor, in collaboration with SIS.   Digital exhibit space has been designed to showcase student and faculty work across campus, while also exposing some of the background work that is required to raise awareness of what is required.   The DSC hosts a series of very popular digital workshops to raise the visibility of digital scholarship across campus and is collaborating with the city and the county to launch a Western Pennsylvania Regional Data Center.

Innovation Oakland: Creating the 21st Century Community – Sandy Brandon

SIS is working with the Oakland Business Improvement District (OBID) on the *Innovation Oakland* project, which includes a public venue for displaying digital art (Forbes Plaza), and a wayfinding signage and interactive kiosk system. Zoning issues have presented some challenges, but recent progress has been successful at addressing many of the concerns (e.g., when might a query left up on a public kiosk be interpreted as an advertisement?).

Prof. Hassan Karimi designed the wayfinding kiosk system. Recent progress has addressed issues such as weather protection and ADA compliance for outdoor wayfinding kiosks. The initial prototype is installed in the SIS lobby and a second one is almost ready to be activated near UPMC at a heavily used bus stop. A third kiosk will be installed in Schenley Plaza on the corner across from the Cathedral of Learning and Hillman Library.

Mayor's Office – Leona Mitchell

Debra Lam, Mayor Peduto's chief innovation & performance officer, approached SIS for a fresh perspective on some of the issues confronting the city. We have started working with them on their help desk capabilities, discovering a broad range of end users that use the service and service levels that are inadequate to meet the needs. The help desk staff, while individually proficient and knowledgeable, was using antiquated tools and systems. This is a very good project for our students – it exposes them to compelling, contemporary opportunities in project management, data analytics, problem solving, critical thinking, etc.

Monday Afternoon Interim Reports of SIS-CS Committees

Education & Curriculum (SIS – Peter Brusilovsky, Bob Perkoski; CS – Jonathan Misurda)

The Education & Curriculum committee has started its work by seeking to identify areas of the existing curriculum that would benefit from using our combined abilities and resources. We would like to build a spectrum of options that allow students to leverage their skills and interests. We are also considering the feasibility of defining a common core curriculum for all CS/IS students in their first undergraduate year. We believe that a 4-year program provides the best ability to create a rich educational experience.

Board members encouraged the committee to engage employers in the process of building the curriculum, and to potentially involve some key industry representatives in its construction. GaTech's threads framework provides a particularly interesting approach that the committee is reviewing.

The committee is also considering broader university issues, including service courses that could either be required or offered as general education electives to all undergraduate students. Board members encouraged the committee to take full advantage of the agility and flexibility being offered at this time, noting that it is a unique opportunity.

Organizational Structure (SIS – Prashant Krishnamurthy; CS – Rami Melham)

While the Organizational Structure committee recognizes the great opportunity being presented to CS and SIS, they also expressed some anxiety over the magnitude of the tasks before them and the breadth of issues and concerns raised by faculty considering the new academic unit. They clearly noted that this is not the type of endeavor the university engages in very frequently, and so there is little precedent or tradition from which to draw guidance.

The committee is examining organizational alternatives that provide sufficient structure for students while concurrently providing agility and flexibility to pursue research opportunities as they emerge. As interdisciplinary research grows in importance, finding ways for faculty to collaborate across disciplines is vital, but also difficult. One approach under consideration is an "internal sabbatical" that would provide faculty the opportunity to immerse themselves in the work of another unit for a sufficiently long period to build the knowledge, confidence, and interpersonal network to pursue complex interdisciplinary projects effectively.

Uncertainty was also expressed over what assumptions the committee could make regarding the size, scope, and financial resources expected to provide the foundation for the new unit. While encouraged to "think big," the committee sought some guidance over what the university was willing to consider, without necessarily committing to it.

Board members also noted that the rarity of such an occurrence on campus suggests the need for a very well thought out launch, including strong messaging and marketing. They pointed out the potential naming opportunity this presented and encouraged the early and

strong involvement of Institutional Advancement in what could become a significant component of a capital campaign.

<u>Research and Collaboration (SIS – Daqing Hé; CS – Daniel Mossé, Bruce Childers)</u>

The Research and Collaboration committee has laid out a process and schedule for very methodically exploring research interests with likely collaborators on campus. Recent meetings, for example, have been held with colleagues in Public Health, Nursing, and Engineering. Bruce Childers observed that a common thread running throughout much of the discussions the committee has conducted focuses on the necessity for computing researchers to understand the application domain, and applications researchers to have a strong working knowledge of computing and informatics. This suggests a foundational theme for the new academic unit could be *Contextually-Situated Computing*, where the term "computing" is taken in its broadest interpretation, to include information science and informatics.
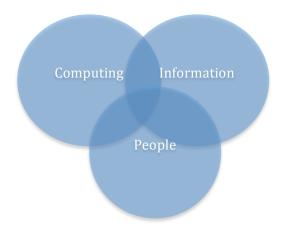
The committee is striving to identify a relatively small number of research themes that could become candidates for "research branding." Problem-oriented themes are appealing (e.g., personalized healthcare), particularly where they clearly embody collaboration across disciplinary boundaries, i.e., where the application domain and the computing and information sciences necessarily work closely together.

Truly interdisciplinary researchers, however, often encounter difficulty in promotion and acquiring tenure according to "traditional" promotion and tenure guidelines. For the university to be truly successful in such endeavors, as important and exciting as they may be, attention will need to be given to relevant university policies, and also to university culture. Campus culture and attitudes could become vital to the new unit's success; we need to take this opportunity to understand this and to build an organization that supports transformative work, not only in the laboratory and the classroom, but also in the careers of those engaged in such work. Having said this, it is also worth noting that not all research is interdisciplinary or collaborative. There remains plenty of room within the university (including the new academic unit) for individual research and personal scholarly endeavors. The new unit needs to be structured to create opportunity, not to impose limitations on individual scholarship.

<u>Vision and Identity (SIS – Martin Weiss; CS – Jan Wiebe)</u>

Following up on this line of thought, the Vision and Identity committee noted that as successful faculty and scholars in established units in a major research university, we know how to do individually-based research.   What we don't know how to do (and encourage, and support) is the broad interdisciplinary style of research that is becoming increasingly important. The committee co-chairs noted that thus far, the work of their committee has been to attend, listen carefully, and seek the threads of commonality among the other committees' conclusions that could contribute to a broader understanding and articulation of a vision and identity for the new academic unit.

In particular, the committee recognizes the difficulty in stimulating, supporting, recognizing, and rewarding interdisciplinary work. Major funding agencies including NIH and NSF are shifting research funds into collaborative research initiatives through funding vehicles such as Clinical and Translational Science Awards (CTSA). In such projects, "basic sciences" faculty work with clinical faculty to accelerate the transition of research findings out of the laboratory and into practice. The type of research that NIH would likely support in the new academic unit could fall within the context of the term *informatics*, embodying computing theory & technology, information systems & usage, and humans & society.

Board Open Discussion with Faculty and Committee Co-Chairs

Board members began the conversation by asking what are the most important issues (from the perspective of the faculty) that must be addressed for a successful formation of the envisioned academic unit? The responses included:
- The new unit will need a full 4-year undergraduate program.
- Incentives will be needed to successfully engage faculty in the many tasks required, many of which might detract from their normal pursuits. Specifically mentioned was seed money to start new initiatives, the ability to attract visiting scholars, and an explicit acknowledgment of a growth trajectory from the administration.
- Clarity on expectations for resource availability.
- Consideration of a university-wide general education requirement in computing, computational thinking, or some related topic.
- Improvements to student advising would help. Currently, the department of computer science is invited to talk to A&S advisors once a term. CS provides advisors a "cheat sheet" for reference, but this is generally considered less than adequate. Faculty attend some student recruitment events, but one of the most common questions among students remains, "What can I do with this degree?"

With Pitt's strategic interest in *personalized education*, what is currently a problem could rapidly and demonstrably be addressed as an opportunity. Service courses are one means that a basic understanding of CS and IS could be more effectively and broadly communicated to students.

The Board then turned to Board members from other universities, asking what they have found to work effectively on their campuses. Among the responses were:
- Penn State holds a "start-up week" with "big name people" to make a splash early in the term. This is organized as part of an entrepreneurial track.
- UNC introduces bioinformatics to students from their five health-related schools, focusing not only on the technical (which the students typically "get") but also on the social and humanities aspects that inform bioinformatics work.
- At Colorado, every admitted student receives a personal call from a faculty member, in order to build a sense that students are "part of" rather than "an addition to" the university. Faculty mentors meet with students several times per term, and now student advising is available 24 hours / day through the library.
- The School of Computer Science at GaTech started with 14 faculty in 1990 and grew to be the College of Computing at its current size of 85-100, with three departments. It is the second largest computing school in the country. They point to "very little structure" as key to both their success and their growth, and Charles Isbell advised against imposing a departmental structure too early at Pitt, although having very firm and explicit guidelines for awarding promotion and tenure are seen as vital. He advocated "letting things grow organically" rather than forcing too much at the start. The existing GaTech departments evolved from centers. He opined that departments involve substantial overhead, with large budgetary expenses for people performing

overlapping administrative functions rather than contributing to the strategic enterprise. Charles also noted that GaTech's management of resources differs from Pitt's, in that they manage "workloads" rather than "faculty lines." A departure of a senior faculty member, for example, preserves the budget, which can then be distributed in other ways, including hiring two people at a lower salary.

- Raheem Beyah noted that the EE department at GaTech takes yet another approach, using Technical Interest Groups to refine and structure granular research interests into loose organizations. Both Raheem and Charles noted, "no one outside of Pitt will really know (or care) what the structure is." Undergraduates associate themselves with a university and a major… not a program or a department.
- Michigan confirmed their preference for avoiding departmental structures, suggesting that with the initial size of the proposed new unit it can act as a single body.
- Note: Faculty engaged in considering SIS-CS structure at Pitt suggest that disciplinary focus, research approach, and publishing venues be used to define (or refine) organizational structure such that structural units aggregate faculty with related interests.

Dinner and the Provost's Charge to the Board

Provost Beeson noted the timeliness of this Board meeting, on the heels of a joint strategic planning meeting last week of the Chancellor's senior staff and the Council of Deans. As her formal charge, she asked the Board to "give me your best thinking on how we can make this the most successful transition.   We want Pitt to be known for the strengths that we have in this area. We want to see people come to Pitt for our strengths in computer science, information science, and data science. I solicit your guidance and advice on what we will need to do to really build this new unit to be as strong as possible and to leverage complementary strengths throughout the University."

In light of the university's strategic planning activities, the Board was asked to think about this unit in the context of the full University and the direction that the University is going. The Provost noted that the growing strengths in computing and information science on campus are central to the direction of the University and its aspirations for excellence.

Hundreds of people were consulted in the planning process for the Pitt Strategic Plan. The types of questions and issues explored included:

- Are we training for specific jobs or are we educating people to be ready for continually changing professions?
- With the expense of getting a degree, is it worth it to pursue a college education – is the return on investment sufficient?
- What should Pitt's strategy be with respect to emerging educational modalities like MOOCs for undergraduate teaching?

- In research – how can we best leverage emerging technologies? Data has become so abundant that we need new approaches to its use and analysis. New forms of research that are broadly referred to as "data-driven" are demonstrating important advances and revealing new insights. The ability to use computation to understand human and societal behavior (at scale) has become very important.
- Data-driven approaches are opening up new opportunities for personalized services, including medicine and education… two areas that are central to Pitt's strategic interests.
- Regarding online education – how can we capture what happens in the classroom and implement this in an online environment to help better educate people, many of whom may never be able to spend time on an actual campus?

Pitt occupies a very special place in higher education in Pittsburgh. We can build on our connections with the city and move it to a higher level by leveraging our abilities in research. But we are also an institution that needs to change its culture – to create an environment focused on success, focused on students, focused on faculty, staff and alumni. We are becoming more agile in our decision-making but this is a long-term process. We strive to be more innovative, more open, and more open to change.

Pitt should be driving diversity within the city, but according to our benchmark cities, we are the least diverse. Pittsburgh is poised to be an innovation hub with the exception of one thing – being a community that is demonstrably and measurably open to differences in thinking. Diversity improves our ability to achieve our mission and goals in every dimension.

We are currently operating without a Commonwealth appropriation, and understand that there will likely not be an approved Commonwealth budget before the end of December. The University continues to be very careful in stewarding its resources in the face of this budgetary uncertainty.

Summary of Meeting – Tuesday, October 13

Board of Visitors Reflections and Considerations

The Board focused on establishing their findings and recommendations in preparation for their meeting with the Provost. The first half of the morning was spent in open session with the SIS-CS co-chairs working on the proposal for the new academic unit, then the Board went into closed session. The following summary is structured thematically rather than temporally (as the Monday report was organized).

Strategic futures (support the Chancellor's and Provost's priorities)

- The priorities expressed by the Chancellor and the Provost suggest the new academic unit's research should contribute to advances in healthcare and education, more specifically, on personalized, data-driven services in healthcare and education.

- An aspirational goal for the new unit should be to become recognized as the best in the world in complementary research and intellectual contributions from CS and SIS to data-intensive healthcare and education.
- Pittsburgh is among the least diverse of major cities, and CS/IS is among the least diverse of professions. Both of these are problems that need to be addressed.
- The Board was unanimous in recommending the new academic unit include a full undergraduate CS/IS program with strong connections to both graduate study and professional opportunities in Pittsburgh that hold the potential to improve the situation with respect to diversity.

Organizing Principles and Implications

- The Board unanimously recommends that the new academic unit be a ***School***, not a center or some other less familiar organization. It needs to be able to hire faculty, offer a distinct curriculum, and award degrees.
- The new school must strike a particular and challenging balance. It must engage in interdisciplinary education, research, and service, but also must establish itself as representing a discipline.
- New or revised university standards and policies will need to be developed for the school. Promotion and tenure policies, for example, may need to be designed to reflect the uniqueness of the new school.

Grounding Realities

- The Board believes that the undergraduate curriculum for the new school needs to be a full 4-year program. One Board member noted that there isn't a top tier computer science program in the country that doesn't start with students as freshmen.
- Incentives need to be provided for faculty to engage in strategically important work to launch the school (e.g., to engage more fully in collaborative research). This will require investment on the part of the university.
- Faculty in the new school will need to be co-located in order to foster the interpersonal interactions necessary for collaborative endeavors. In the near term, some careful relocation of faculty to other component units of the school may be useful in developing a sense of community and fostering collaboration, but for the new school to address the University's stated goals, a new building designed specifically to support computing and information-intensive teaching and research will need to be a priority in Pitt's facilities plan.
- Existing budget models (i.e., tuition & majors) will likely be inadequate to support emerging styles of collaboration and interdependencies across university units. In particular, a more flexible model of tuition assignment based on which school is delivering course credits (rather than what the student's major may be) will be needed.

- A transition strategy and plan needs to be carefully developed that accommodates near-term realities as well as long-term aspirations.

Groundbreaking Necessities

- As the Provost noted in her charge to the Board, cultural change within Pitt will be needed. The Board observes that the Chancellor and Provost are already beginning to address this and commend this effort.
- Seed money, faculty release time, and likely other investments and incentives will be needed to launch early initiatives; tying incentives to performance and goals is entirely appropriate and is encouraged.
- Appropriate reward structures and related recognition mechanisms will also be needed.
- Student support will likely be a challenge for the new school, especially in its formative period. Substantially enhanced and expanded student advising will clearly be needed, and the Board supports university investment in student advising informed by the experiences of aspirational peers who have built similar schools.
- Careful consideration needs to be extended to determine research expectations, teaching loads, and related faculty workload parameters. The Board discovered a wide array of approaches and alternatives among aspirational peers and across disciplines represented in the new school.

Measures of Success

- The Board encourages Pitt to strive to build recognition of the new school as a national model through:
    - Campus outreach: the new school should touch every undergraduate in some manner
    - Offer service courses available to any Pitt undergraduate to satisfy general education requirements
    - Develop a set of performance metrics such as research funding and expenditures, numbers of students enrolling in the school's majors, number of credit hours taught to students throughout the campus, … that provide a set of quantitative measures by which to assess progress.
- The Board encourages the Provost's office to work with faculty and administration developing the proposal for the new school to think creatively about measures of impact, diversity, and related qualitative aspects that fit the culture of Pitt and the aspirations for the new school.
- Strategies for attracting research funding from a broad spectrum of sources (federal, corporate, & foundation) should be included in planning for the new school.

Structural Issues

- The new school is likely going to require new and creative approaches to address the full spectrum of academic needs anticipated. The Board suggests that consideration be given to dual ladder promotion paths and related approaches to support and recognize:
    - Research-active faculty who may need (and deserve) a reduced teaching load
    - Teaching-intensive faculty (e.g., professors of practice) who may benefit from (and deserve) reduced research expectations
- A range of related issues will deserve attention, including:
    - Mentoring of (particularly) pre-tenure faculty
    - Reward, recognition, and incentives for collaborative and/or interdisciplinary research that stretches traditional boundaries and expectations
    - Scaling of teaching and student services to make service courses both feasible and successful across campus.
    - Careful consideration of the university-wide and school-specific infrastructure to support the goals of the new school.
    - Writing by-laws for the new school, with a 3-5 year sunset clause to ensure they will be revisited (and potentially revised) once the new school has been established.

Parting thoughts…

This is a bold undertaking, for which the Board commends Pitt and its senior leadership. It reflects the type of strategic thinking and risk acceptance that a major research university needs in order to excel in the 21st century. Creating a new school does not happen often. The most recent event of this kind at Pitt was the creation of the College of Business Administration, the undergraduate arm of the Pitt Business School, which admitted its inaugural class of students in 1995. A successful venture will require grass roots support from below and leadership endorsement from above. It will, likewise, need to provide support, recognition, and rewards for those willing to take on such a venture as well as very professional institutional advancement, communication and marketing support to provide the visibility the initiative deserves.

The Board of Visitors for the School of Information Sciences offers its full support and commitment to this audacious venture.