Creativity, Innovation and the Potential for a New Campus Facility

Four years ago the Idea Shop was created as a home on our Mies Campus for interdisciplinary student project work and was initially focused on our IPRO program. Over time the “Idea Shop” has become a facility for many types of interdisciplinary and multidisciplinary projects. In addition, it has allowed students to develop their own creative ideas by moving quickly from concept to prototype.

As the Idea Shop evolved, the Institute of Design, the Business School and the Psychology Department became integral parts in the development of the programs in the Idea Shop and to the development of IPRO 2.0, which has become a viable alternative to our traditional IPRO projects. The Institute of Design (ID) has interfaced with our IPRO program to teach design methodologies. This relationship was formalized when Senior Lecturer Jeremy Alexis was appointed the head of the Idea Shop and the IPRO Program last semester. Additionally, ID Professor Vijay Kumar’s book, 101 Design Methods: A Structured Approach for Driving Innovation in your Organization, Wiley, 2012, is integral to our teaching of design methodology to IPRO students.

At the same time as the Idea Shop was initiated, our “Pathways to Professionalism” program was introduced. This program has generated co-terminal BS/MS degree paths that allow undergraduates, with the necessary GPA and background, to reduce their time to graduation with a Masters degree. University-funded financial aid can be extended into the fifth year, when appropriate. In this manner the students graduate with both degrees at the same time, where the final undergraduate course is taken during their last semester at IIT. This program can lead to multi-disciplinary degrees with a BS in one field and an MS in another, as well as standard disciplinary BS/MS degrees.

The Idea Shop and the Pathways to Professionalism program support our view that undergraduate education must be focused to allow student success after graduation, where abilities that transcend our disciplinary boundaries are important at both the graduate and undergraduate level. For example, qualities such as leadership, teamwork, design, planning, and communication are all key skills that students should learn while at IIT. Some students wish to be entrepreneurial, while others aspire to innovate and focus their creativity. Education at IIT must provide discipline-specific excellence while developing our student body to become leaders, entrepreneurs and innovators. Graduates who exhibit focused creativity that can lead to meaningful innovation, have leadership abilities and disciplinary excellence will become successful in their future endeavors. Our graduates are multi-dimensional – some wish to move to graduate school for professional or doctoral education; others wish to start a career or a business; some aspire to enter the corporate world. In
addition, some wish to participate in government, return to their countries of origin, spend time on service or volunteer activities, or simply use education as a platform for the achievement of their specific goals.

Our university programs must be focused on not only disciplinary excellence but also on the development of the person as a whole. In addition to our academic programs, out-of-class experiences are very important. The Leadership Academy, the Entrepreneurship Academy (including the Knapp Center), Student and Residence Life, our Living and Learning Communities, Fraternities and Sororities, Undergraduate Research Opportunities, Study Abroad Program, Student Clubs, Athletics, etc., are all part of a vital university experience. In order to accomplish this goal, we need to complement our offerings by initiating a Teaching and Learning Center to share best practices among our faculty, develop new educational pedagogies and introduce new faculty to the IIT way of education. We will instill a culture of interdisciplinary collaboration in our graduates to enable them to function immediately in a wide variety of environments (corporate, research, government, academia and new ventures).

Of course, all of these initiatives are based upon excellence in our faculty – distinction in teaching and scholarship in their discipline, upon research excellence, and upon their willingness to mentor and guide our students towards graduation. Without this bedrock, all other programs have no meaning. Fortunately, this is our strength as a University.

Over the last six months a group of faculty, trustees and students (Table 1), The IC Task Force, has been focused on the future of IIT and has reviewed concepts for a potential “Innovation Center (IC)” and its role in the transformation of our undergraduate and graduate programs. The “Innovation Center” as a term has developed to have two meanings: (1) a new building on the “Mies Campus” to enable creative thought to be transformed through collaboration to innovation; and, (2) a collaborative platform that contains programs run by our academic units that are inter- and multi-disciplinary, focus on creativity, innovation and enterprise, and will distinctively define our collaborative undergraduate educational experience. This set of educational offerings will be collectively referred to as IIT’s Innovation Program. Thus, when one speaks of the Innovation Center, perhaps one should refer to the building – the “IDEA Studio” or the “Center for Collaborative Innovation” or some other appropriate name - and the Innovation Program as two separate but linked endeavors where the building will accelerate the Innovation Program’s success and become a symbol and a physical manifestation of our new direction. The Innovation Program is, of course, in the hands of our academic programs and is being developed by our faculty members.

It is envisioned that the building will be a home to all of our collaborative educational programs such as IPRO and Engineering’s capstone courses, for example. It is also planned that it could become the new location for the Institute of Design on the Mies Campus. The Entrepreneurship and Leadership Academies could
also find a permanent space in this new building, and our future Teaching and Learning Center could be housed in this facility as well. However, it is the role of the building in our University's future that is most important. The IC group was tasked with developing a Vision and a Mission for both the building and the programs that will transform our University, as the reason for a new building is not simply to house programs and units but to accelerate our process of innovation and change. The building will be a physical manifestation of a deeper culture change on campus. That is, our actions are characterized by a spirit of collaboration and innovation and that we value creativity in all endeavors.

The building will be designed to accelerate and encourage collaborative efforts between our faculty, students, alumni and the business community by providing a novel space on the Mies Campus specifically designed for this purpose.

Below are the Vision and the Mission statements that were developed by the IC Task Force to guide building and program design.

**Vision**

The Innovation Center will attract students who will learn to convert their creative ideas into significant, viable innovations. They will become the leaders, innovators, and entrepreneurs of the future.

**Mission**

The mission of the Innovation Center is to nurture the advancement of creative ideas, to foster interdisciplinary collaboration and to create a culture that enables innovation to flourish.

As the IC is envisioned to be a place where innovations can occur, a context for this center was developed:

**Context:**

The Innovation Center (IC) will be a place for students, faculty, and partners to be inspired, collaborate with like-minded yet diversely skilled people and have access to and support for developing extraordinary innovations.

The IC will be a unique collaborative environment on campus, and through distinctive design, programming and its diverse population, it will be admired and recognized as a premier example for success in innovation, education and collaboration. It will help create, from within our student body and faculty, the thought leaders, entrepreneurs and innovators of the future, and will be a source of pride for the IIT community.
The IC will be a home for the Institute of Design on the Mies Campus, for the
new Idea Shop and for our IPRO Program. It will also be an experimental
facility for the initiation, development and nurturing of academic programs
related to innovation, leadership and entrepreneurship. It will be a space and
a destination to encourage collaboration between and among faculty,
students, alumni and the entrepreneurial community that will lead to
meaningful innovations.

The IC will be housed in an architecturally significant new building on the
Mies Campus that will be designed to allow IIT to achieve its IC vision and
mission.

Within this vision, mission and context, a number of goals have been developed for
the Innovation Center:

Goals

IIT's Growth and Transformation
- The IC will be the primary component in IIT's transformational plan. Its
  programming will allow IIT to become a distinctive technological
  university that will grow and attract top students and faculty.
- Every undergraduate student will participate in the IC programs to
  enable them to become thought leaders, entrepreneurs and innovators,
  and to be valued in the job market because of this experience.
- The IC will be attractive, accessible, and valuable to all of the colleges.
- All colleges and schools at IIT will contribute to and develop programs for
  the IC.
- Our undergraduate programs will be a major force in the development of
  the IC as all undergraduates will participate in an interdisciplinary or
  multidisciplinary experience in the IC that will focus on collaboration
  across the disciplines.
- Our graduate programs will also add their unique knowledge and skills to
  the IC to benefit our undergraduate student education. All of our graduate
  programs will contribute to the educational programming of the IC to
  ensure that all of IIT's strengths related to innovation will be represented
  in the IC. Thus, Law, Business, ID and Human Sciences will join with those
  of Architecture, Engineering, Science and Applied Technology in the IC
  program.
- The IC's success will contribute to IIT's improved reputation and its rise
  in national rankings.
Students

The IC will:

- Attract the most talented and creative students and cultivate their skills for careers as innovators, leaders and entrepreneurs.
- Enable “remarkable achievements” from our students over their careers.
- Assure best initial placement opportunities post graduation – at the best global organizations, providing great career potential.
- Inspire our students to become entrepreneurs and start companies.

Faculty

The IC will:

- Increase faculty collaboration on interdisciplinary research and education.
- Enable faculty to become experts in project-based, collaborative teaching.
- Attract and retain the best and most innovative faculty.

Outreach: Alumni, Business and Community

The IC will:

- Promote IIT and the IC as stakeholders in the global innovation and entrepreneurship ecosystem reaching outside its four walls to collaborate with alumni, business, community, government, and other universities.
- Help Chicago become a Hub of Innovation and enterprise formation.
- Inspire youth to become innovators in STEM and other fields.
- Act as a facility that will allow alumni, business and friends of the University to participate in achieving the IC’s Vision and Mission.

Based on these goals, a number of strategies have been developed.

Strategies

IIT’s Growth and Transformation

- Develop a structure under the guidance of the Provost that gives responsibility and accountability for success of the IC to both the academic (Deans) and research (Vice Provosts and Institute Directors) leadership of the University.
- Appoint an external review committee to oversee the accomplishments of the IC and suggest future directions.
- Provide a range of experiential opportunities that will continuously improve and evolve. These offerings will include IPROs, entrepreneurial
studies, leadership programs, the Idea Shop, design methods, prototyping labs, and more.

- Encourage coordinated programs that foster collaboration, promote broad thinking, and create the environment required to accelerate innovation.
- Promote IIT and the IC as stakeholders in the global innovation and entrepreneurship ecosystem, reaching outside its four walls to collaborate with business, community, government, and other universities.

Student Participation and Placement

- Require all undergraduates to take courses in the IC that will enable them to become thoughtful leaders, entrepreneurs and innovators.
- Cultivate relationships with potential employers, especially those companies started by IIT graduates.
- Showcase the pool of IIT undergraduate talent available to organizations.

Faculty Engagement

- Develop a culture of faculty participation in the IC as a place where random encounters lead to new projects and experiences.
- Promote and reward faculty engagement in the IC.
- Encourage 'random' encounters between faculty members with diverse perspectives.
- Facilitate the creation of multi-disciplinary collaborative research projects of all types.

Alumni and External Organization Engagement

- Provide specific opportunity for organizations to bring problems to the IC and to work collaboratively with student/faculty teams. This will allow them to gain access to fresh ideas and solutions.
- Provide funding and support, directly or through contacts, to enhance building environments, necessary equipment and program support.

Based on these goals and strategies some time lines have been developed:

Achievement Metrics

IIT’s Growth and Transformation:

IC Building

  - September 2013 - Complete benchmarking and conceptual design
• December 2013 - Choose an architect and develop a plan for a new building on campus that will become a home for the IIT Innovation Center Programs, the Idea Shop and ID
• During 2014 - Begin construction of the building
• May 2016 - Complete IC building and move all units into the building

Leadership Structure

• October 2013 - Develop a strategy and a leadership structure that will foster and build the innovative spirit within IIT to allow the mission of the IC to be achieved
• August 2014 - Complete implementation of the strategy and leadership structure using facilities that currently exist at IIT and initiate the virtual IC at the University

Undergraduate IC Program Development

• May 2015 – Complete the academic programming for the Innovation Center

Students

• May 2014 - All undergraduates will have a team-based educational experience focused on development of creative ideas within the Idea Shop
• May 2017 - 100 of our program graduates will either be involved in an entrepreneurial endeavor; will have filed a patent disclosure; have participated in the formation of a new company or enterprise; or, are pursuing further education that will allow future success in either an innovative, entrepreneurial or leadership position
• May 2019 - Ensure that all undergraduates on campus will have participated in our innovation strategy and experience, and 500 of all program graduates will be involved in an innovative career path

Faculty

• August 2014 - At least 3 full time faculty members from each college will be fully involved in the IC operation as teachers, researchers and mentors
• August 2014 - The leadership structure of the IC will contain faculty members from each college/school
• May 2018 - Faculty use of the Innovation Center for interdisciplinary projects or innovative concepts will lead to at least 10 funded interdisciplinary projects with industrial or governmental partners
External Engagement Alumni and Friends

- May 2017 - Companies involved with innovation center projects will increase by 25% over a benchmark set before the building is occupied
- May 2017 - Alumni involvement in the IC will increase by 25% over a benchmark set by current involvement in the Idea Shop

Fundraising

- August 2013 - Initiate a fundraising committee
- By July 2014 - Raise $20M
- By December 2015 - Raise $40M
- By July 2016 - Raise a total of $45M

Conclusion

There remains much work to be done and Professor Dietmar Rempfer has been working with a group of faculty members on the future academic programming of a potential “Collaborative Innovation Center”. When a report is available from this group, he will share it with the faculty. In addition, Professor Christopher White will lead our overall efforts to define our distinctive education, but clearly the concept of new building and program focused on collaborative activity that leads to meaningful innovation is a large undertaking. It will require that our faculty harness their creativity in order for this to come to fruition. I ask you to contact either Professor Christopher White or Professor Dietmar Rempfer if you wish to be involved in this exciting initiative.

Plans for the facility will be initiated this fall and an architect will be chosen. It is up to our faculty to think about the educational space of the future for collaborative learning and become actively involved in the planning of this new building, its programs and the necessary technology and space design that will be needed for it to be successful.

It is the President’s view that this new space will be for all and, as such, will be not be owned by any college or school. It will be overseen by the Provost with a Board of Advisors that will include each Dean, a number of trustees and some external experts in the area.
Table 1: IC Steering Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
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<tbody>
<tr>
<td>Jeremy Alexis</td>
<td>Director, IPRO Program and Idea Shop</td>
</tr>
<tr>
<td>Dietmar Rempfer</td>
<td>Associate Dean, Armour College of Engineering</td>
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<tr>
<td>Ophir Trigalo</td>
<td>Chief Information Officer</td>
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<tr>
<td>Patrick Whitney</td>
<td>Dean, Institute of Design</td>
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<tr>
<td>Wiel Arets</td>
<td>Dean, College of Architecture</td>
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<tr>
<td>George Langlois</td>
<td>Director, Leadership Academy</td>
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<tr>
<td>Nik Rokop</td>
<td>Managing Director, Entrepreneurship Academy</td>
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<tr>
<td>Kelly Lohr</td>
<td>President, Student Government Association</td>
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<tr>
<td>Ron Landis</td>
<td>Professor, Psychology</td>
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<tr>
<td>Alan Cramb</td>
<td>Provost and Sr Vice President Academic Affairs</td>
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<tr>
<td>Martin Thaler</td>
<td>Visiting Associate Professor, Institute of Design</td>
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<tr>
<td>Vedran Mimica</td>
<td>College of Architecture</td>
</tr>
<tr>
<td>Susan Conger-Austin</td>
<td>Studio Associate Professor, College of Architecture</td>
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<tr>
<td>Robert Krawczyk</td>
<td>Professor, College of Architecture</td>
</tr>
<tr>
<td>Sean Keller</td>
<td>Assistant Professor, College of Architecture</td>
</tr>
<tr>
<td>Karl Stolley</td>
<td>Assistant Professor, College of Science and Letters</td>
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<tr>
<td>Gertrude Kasole</td>
<td>Student - MMAE</td>
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<tr>
<td>Andrew Agostini</td>
<td>Trustee</td>
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<tr>
<td>David Crowell</td>
<td>Trustee</td>
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<td>Steve Crown</td>
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<td>Chris Gladwin</td>
<td>Trustee-Designate</td>
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<td>Ed Kaplan</td>
<td>Trustee</td>
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<td>Joel Krauss</td>
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<td>Vic Morgenstern</td>
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<td>Walter Nathan</td>
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<td>Ellen Jordan Reidy</td>
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<tr>
<td>Bob Washlow</td>
<td>Trustee</td>
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<tr>
<td>Leroy Kennedy</td>
<td>Vice President, Community Affairs &amp; Outreach Programs</td>
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<tr>
<td>David Baker</td>
<td>Vice President, External Affairs</td>
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<tr>
<td>Bruce Watts</td>
<td>Vice President, Facilities and Public Safety</td>
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<tr>
<td>Betsy Hughes</td>
<td>Vice President, Institutional Advancement</td>
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<td>Jeannie Hartig</td>
<td>Vice President, Marketing and Communications</td>
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<tr>
<td>Mike Gosz</td>
<td>Vice Provost for Admissions and Financial Aid</td>
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<tr>
<td>Sheng Hao Koo</td>
<td>Undergraduate Business Student</td>
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<tr>
<td>Ryan Gann</td>
<td>Undergraduate Architecture Student</td>
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