

The Case for the DePaul University's

MS in Sustainable Management Degree

A Cross-College Collaboration Program

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The Case for the DePaul University's MS in Sustainable Management (MSSM) Degree A Cross-College Program

Current State of the MSSM

The Master of Science in Sustainable Management (MSSM) program combines courses from the College of Science and Health, College of Communication, School of Public Service, College of Liberal Arts and Social Sciences, and Kellstadt Graduate School of Business that provide a broad base of knowledge and skills for implementing sustainable strategies in today's marketplace.

The program is designed for students with bachelor's degrees, or students who have earned graduate degrees, for example, MBA's who want to increase their depth of knowledge about sustainable management principles and practices. See **Appendix 1** MSSM curricula.

It is the first of its kind in the Chicagoland area. While we see evidence of the development of similar programs in response to the growing global demand, we believe our focus on *sustainable strategy development* – driven by values - makes it unique in the Chicagoland area, and one of the few nationally, which meets the needs of students and the market recognizing the need for systemic change, challenging current business assumptions.

The MSSM was approved June 6, 2012 and launched in winter quarter 2013. The first faculty meeting of the new program was held July 18, 2012 and the second March 11, 2013. The Minutes of both meetings are in **Appendix 2**, showing the vision, direction, revision and broad faculty support for the program.

The first Sustainable Management program at DePaul was an Executive Education program in 2009 for the Institute for Business and Professional Ethics - proposal in **Appendix 3**. Based on the Executive Education effort, and at the request of the deans of Liberal Arts and Sciences and of College of Commerce, the MSSM leadership team developed a multidisciplinary, multi-college track/concentration in the MBA which became the core of the MSSM.

After the successful launch of the MSSM and with extensive cooperation with the Department of Environmental Sciences and Studies, the leadership team developed a 4+1 program where students applied for admission in their junior year and, upon acceptance, took three MSSM courses during their senior year. These courses double-counted for ENV allied elective courses and toward the MSSM degree requirements.

The 4+1 program was recently extended to admit university-wide undergraduates in AQ 2016, and will likely meet the programs enrollment goals of 10 students per year for a total of 20 students in the program. We have 12 students for AQ 2016 and 23 students enrolled in our core ENV 506 "Earth Resources and Earth Society" for WQ 2017.

Differing Conceptual Approaches to Sustainable Management

The MSSM takes a different conceptual approach to sustainable management than the MS in Management launched in AQ 2016, which requires one currently offered in MSSM core: MGT 515 Sustainable Management. The focus of the MS in Management is to use *current* management and ethical decision-making frameworks to shape the student's role as manager. By contrast, the MSSM's core goal is to develop the capacity of students to assess, challenge and *reframe* traditional practices of management through the following sets of skills:

- Analytical skills focusing on how societies and organizations value resources required to deliver goods and services.
- Technical skills to analyze and measure the economic, social and environmental impacts of organizational decisions.
- Decision-making abilities to develop organizational strategies.
- Communication skills to present the business case for sustainable strategies.

Different Pedagogical Approaches to Sustainable Management

In addition to differing conceptual approaches to the field of sustainable management, the MSSM also takes a differing pedagogical approach to the field. The primary focus of the MSSM is for students to develop projects and strategies capable of changing existing systems and to cultivate pragmatic habits of mind – mindsets - that both connect and go beyond skill sets from any particular approach. It takes a project-oriented, systems intervention approach that is pedagogically distinctive:

- It is *project-oriented*. The program requires students to identify a sustainability-related challenge or opportunity they wish to address at the beginning of the program, which serves as a learning "arc of pragmatic inquiry" thread (continually testing assumptions/hypotheses) throughout each of the courses. Although a student's project may change during the program, each course provides an opportunity to shed light on a particular aspect of an issue, challenge, or opportunity.
- It takes a *systems thinking* perspective. One of the primary aims of the MSSM program is for students to understand how their project is embedded in a variety of inter-related systems that, collectively, constitute an "integral ecology" as Pope Francis describes in *Laudato Si': On Care For Our Common Home*. The inter-related systems that comprise an integral ecology include organizational, economic, social, cultural, and environmental. By taking the big picture perspective of integral ecology in addition to the analytical perspectives of various courses and disciplines students are able to develop a sense of the larger whole. Students are required to showcase the integration of their learning and their thinking by establishing an electronic portfolio that serves as a showcase of thought underlying their final capstone systems intervention plan.
- It is *values driven*. Navigating the era of big data, students understand that they do not just make observations or gather data. They also clarify and cultivate the vision, values, and convictions necessary to effectively implement disruptive solutions—to venture beyond the classroom and confidently bring a new product, service, or idea into a crowded marketplace.

As a program focused on sustainable management, the program also familiarizes

students with the values, goals, and targets of various United Nation's efforts including the *UN Sustainable Development Goals*, the *Global Compact*, and the *Principles for Responsible Management Education* - values that resonate with DePaul's Catholic, Vincentian ethos. DePaul is a signatory of both initiatives at the university level. See **Appendix 4** for a case history.

- It enables courageous intervention. Challenging, changing, and re-imagining existing practices is very difficult and requires courage. Once students grasp the larger systems that impact their project, they are better positioned to develop an effective systems intervention strategy to create new value. Although project solutions are as diverse as the students in the program, they all result from the same learning experience of being attentive, intelligent, reasonable, and responsible.
- It enables *communication skills*. Students also develop the ability to persuasively articulate the business case relying on marketing, financial, operations, management and moral dimensions of organization practice to persuade stakeholders to support and implement the sustainable strategies they envision.

Student Learning Experience in the MSSM

1. A number of MSSM students have commented on the value of the program and its pedagogy in various final reflection papers:

Student 1-reflecting on the MSSM Program

"This quarter has been a very enlightening one for me. I started out trying to solve an issue for the low-income community and ended up with a business plan that can be expanded to the whole market. I learned to expand my thinking and think differently. Since my business plan worked the opposite of the way the solar industry currently finances projects, I had some really interesting conversations with people in the market that lead me to my conclusions. In conclusion, this quarter has been very eye opening for me as I continued to develop my project into a business plan. I intend to use the research that I have done for this plan toward a new business venture within my own company and call on utilities and policy makers to have these conversations

Student 2-reflecting on the MSSM Program

"The MSSM program has reaffirmed that this is exactly what I want to do with myself for the rest of my life, and I think it has an absolute blessing for me. I loved letting my creativity and constant thinking and reevaluating shine in these types of classes, and the program in general. Without this program, I would not feel confident with my career path."

Student 3-reflecting on the MSSM Capstone Practicum class

"This class especially changed my entire project because I was able to think of and develop a solid, unique solution for my problem question. Something I can, and want to, accomplish. I asked myself what was the actual issue I wanted to solve, and dove deeper into that idea. I am really proud of all that I have accomplished, and am excited to start a new chapter in my pragmatic inquiry path."

Student 4 - reflecting on the MSSM Ecological Economics course.

"...our ecological economics studies have had a profound influence on my thinking. I find myself constantly applying the concepts of challenge questions and intervention points in a multitude of professional and personal situations. I have had an entire program of study where I have learned a great deal about business, however was never challenged as to why business assumptions are what they are

until ecological economics."

2. Survey of Graduate Responses:

In SQ 2016 a five-question survey was sent to MSSM graduates. Below are responses from four students to the first survey question. These students all work in different sectors in a variety of business functions, and none of the graduates have the word "Sustainability" in their job title. This reality demonstrates that the approach of the MSSM is not to provide an existing skill set or a toolkit, but rather to enable students to have a new mindset so that they can effectively identify, define and develop strategies to solve complex challenges in all society sectors. Furthermore, it suggests that the opportunity for sustainable management is much bigger than training for sustainability officers.

Q. What work are you doing now and how does your DePaul MSSM or MBA Sustainable Management education experience help you in this work?

Student 1:

"The MSSM program helped me land this career (at JP Morgan) with my interests in sustainable investments, adding value to clients portfolios with social responsibility in mind. With all that I learned throughout the courses in the MSSM program, I was able to use those tools to grow personally and professionally."

Student 2:

"I'm a data analyst for Goby, we help real estate holding companies track their buildings consumption patterns, achieve certifications, and submit to global reporting... As I learn more I can see the MSSM classes helping me realize and rethink processes to help us scale and get data more efficiently. I think the strengths are that it really challenges students to think holistically and follow through on courses...projects that had to be very well thought out. beginning to end, a lot of research.

Student 3:

"When I started the MS program, no other university was offering anything like it. I didn't want to work in a business whose only goal was making money: I was looking for real value creation. Now, my work, my company (rooftop gardens) and my education are a good fit. I came out of my undergrad with a strong financial skill set; the grad program gave me purpose."

Student 4:

"At work I have been involved in more Sustainable Reporting Projects for the Real Estate Industry. A few projects we work on include GRESB (Global Real Estate Sustainability Benchmarking), SASB (Sustainability Accounting Standards Board) and CSR Reporting. My academic background on CSR reporting has assisted me in becoming one of the few point persons involved on these forms of custom consulting projects. Additionally, during my program I was able to select courses from other programs and it was here I began to learn more about LEED and Real Estate - which I was able to reflect on in my work, as LEED is a primary project we assist clients with. I think the MSSM program taught me how to think about projects through various lenses which has assisted me in being brought in on a lot of new projects because I am able to organize, scope + plan, and deliver on these new projects."

Q. From your perspective now, what are the strengths and weaknesses of the MSSM and MBA Sustainable Management Concentration? What changes would you suggest?

Student 1.

"I think its strength lies in its uniqueness in the market for graduate business studies. I think it also has good leadership in the faculty teaching the core courses of the program. As for weaknesses, I believe the program could use a more hands on approach from the faculty to guide students in course selection and course sequencing. I think a unified narrative across the program linking each of the courses would help promote a stronger sense of purpose and deliver more value to the students. I recall some students feeling that the program was disjointed and many classes felt more like a silo – separate from the core principles and message of the program. This certainly would require more coordination amongst the faculty teaching the courses, especially with any courses taught by adjunct professors or electives in other colleges at DePaul."

Description of MSSM: Classification of Instructional Programs:

This CIP gives official description to the MSSM and the MASUD which is important to student understanding of the opportunities both in the US and internationally. This CIP is also part of the STEM (and STEAM) definitions.

Detail for CIP Code 30.3301 https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=89257

Title: Sustainability Studies.

Definition: A program that focuses on the concept of sustainability from an interdisciplinary perspective. Includes instruction in sustainable development, environmental policies, ethics, ecology, landscape architecture, city and regional planning, economics, natural resources, sociology, and anthropology.

See **Appendix 5** for dramatic growth in enrollment data for Environmental Science, Environmental Studies and Sustainability Studies program in the US

NOTE: This CIP Code also includes the description of the complementary DePaul MA in Sustainable Urban Development, which focuses on developing *community* resources while the MSSM focuses on developing *organization* resources. http://las.depaul.edu/academics/sustainable-urban-development/Pages/default.aspx

Publicity for the MSSM Program and Graduates:

1. MSSM alum Zach Waliullah:

https://resources.depaul.edu/distinctions/featured-stories/ Pages/sustainable-business.aspx

2. MSSM alum Mike Cody:

http://resources.depaul.edu/distinctions/featured-stories/Pages/Business-of-Sustainability.aspxa

3. DePaul University MSSM degree website: http://www.depaul.edu/UNIVERSITY-CATALOG/DEGREE-

REQUIREMENTS/GRADUATE/BUSINESS/SUSTAINABLE-

MANAGEMENT/Pages/default.aspx

- 4. DePaul University Sustainability website: http://offices.depaul.edu/mission-and-values/Programs/Sustainability/Pages/default.aspx
- 5. Chapter from UN PRME Book on Pedagogy Appendix 4.

APPENDIX 1 MS in Sustainable Management Course Requirements

MS in Sustainable Management Proposed Revision – 01-27-2017

	rent MS in	Pı	Proposed MS in Sustainable Management		
	ainable		8 Core Courses		
Management			4 Elective Courses – Business and Interdisciplinary		
			1 0		
# Post	Title uired Core (5 Courses)		#	Title - Note Changes Bolded	
		3.5	T. C. 4.5.2	Required Core (8 Courses)	
ECO 798	Ecological Economics: A Macro-market	M	LS452	Great Ideas, Business and Society: Sustainable Systems -A Macromarket Perspective	
190	Perspective			Systems -A Macromarket rerspective	
	(Originally: MKT798)				
Mgt	Managing for Effective	M	gt500	Managing for Effective & Ethical Organizational	
500	& Ethical			Behavior	
	Organizational				
Mgt	Behavior Sustainable	M	gt515	Sustainable Management	
515	Management	171	giJIJ	Sustamable Wanagement	
Acc	Financial Accounting	Ac	ec598	Accounting for Non-Accountants	
500	_				
TIN I			gt598	Project Management	
EN V50	Earth Resources & Human Society	EN	IV506	Earth Resources & Human Society	
6	Human Society				
Fin5	Sustainable Value	Fi	1559	Sustainable Value Creation	
59	Creation				
GS	Developing Sustainable		SB595	Developing Sustainable Strategies – Capstone Practicum	
B	Strategies		LS409		
Business Foundations (4		IVI	PS604	Business Foundations Electives	
courses)				Dusiness I cunculous Execuves	
Eco	Business Conditions	Ec	o509	Business Conditions Analysis	
509	Analysis				
	Managing for Effective		kt798 gt500	Green Marketing Managing for Effective & Ethical Organizational	
Mat		171	gisou	Managing for Effective & Ethical Organizational	
Mgt 500	8 8			Behavior	
Mgt 500	& Ethical Organizational			Behavior	
500	& Ethical Organizational Behavior				
500 Mgt	& Ethical Organizational Behavior Operations	Ac	ec557	Behavior Global Strategic Financial Analysis	
500	& Ethical Organizational Behavior			Global Strategic Financial Analysis	
500 Mgt	& Ethical Organizational Behavior Operations	M	gt501 gt507	Global Strategic Financial Analysis Strategic Supply Chain Management	
Mgt 502	& Ethical Organizational Behavior Operations Management Quality Management	M M	gt501	Global Strategic Financial Analysis	
Mgt 502 Mgt 508	& Ethical Organizational Behavior Operations Management Quality Management Systems	M M M	gt501 gt507 gt508	Global Strategic Financial Analysis Strategic Supply Chain Management Global Sourcing and Procurement Quality Management Systems	
Mgt 502 Mgt 508 Mgt	& Ethical Organizational Behavior Operations Management Quality Management Systems Change Management &	M M M	gt501 gt507	Global Strategic Financial Analysis Strategic Supply Chain Management Global Sourcing and Procurement	
Mgt 502 Mgt 508 Mgt 535	& Ethical Organizational Behavior Operations Management Quality Management Systems Change Management & Consulting	M M M M M M	gt501 gt507 gt508 gt535	Global Strategic Financial Analysis Strategic Supply Chain Management Global Sourcing and Procurement Quality Management Systems Change Management & Consulting	
Mgt 502 Mgt 508 Mgt	& Ethical Organizational Behavior Operations Management Quality Management Systems Change Management & Consulting Ethics & Leadership:	M M M M M M	gt501 gt507 gt508	Global Strategic Financial Analysis Strategic Supply Chain Management Global Sourcing and Procurement Quality Management Systems	
Mgt 502 Mgt 508 Mgt 535 Mgt	& Ethical Organizational Behavior Operations Management Quality Management Systems Change Management & Consulting Ethics & Leadership: Streets of Chicago	My	gt501 gt507 gt508 gt535 gt535	Global Strategic Financial Analysis Strategic Supply Chain Management Global Sourcing and Procurement Quality Management Systems Change Management & Consulting Ethics & Leadership: Streets of Chicago Entrepreneurship and New Venture Management	
Mgt 502 Mgt 508 Mgt 535 Mgt	& Ethical Organizational Behavior Operations Management Quality Management Systems Change Management & Consulting Ethics & Leadership:	My	gt501 gt507 gt508 gt535	Global Strategic Financial Analysis Strategic Supply Chain Management Global Sourcing and Procurement Quality Management Systems Change Management & Consulting Ethics & Leadership: Streets of Chicago	
Mgt 502 Mgt 508 Mgt 535 Mgt 535 Mgt 556 Mkt	& Ethical Organizational Behavior Operations Management Quality Management Systems Change Management & Consulting Ethics & Leadership: Streets of Chicago	Mg Mg Mg Mg Mg Mg Mg Mg	gt501 gt507 gt508 gt535 gt535	Global Strategic Financial Analysis Strategic Supply Chain Management Global Sourcing and Procurement Quality Management Systems Change Management & Consulting Ethics & Leadership: Streets of Chicago Entrepreneurship and New Venture Management	
Mgt 502 Mgt 508 Mgt 535 Mgt 535 Mgt 556 Mkt 595	& Ethical Organizational Behavior Operations Management Quality Management Systems Change Management & Consulting Ethics & Leadership: Streets of Chicago Social Enterprise	M	gt501 gt507 gt508 gt535 gt535 gt556 gt570 gt595 kt559	Global Strategic Financial Analysis Strategic Supply Chain Management Global Sourcing and Procurement Quality Management Systems Change Management & Consulting Ethics & Leadership: Streets of Chicago Entrepreneurship and New Venture Management Social Enterprise Emerging Markets Sustainable Supply Chain Management	
Mgt 502 Mgt 508 Mgt 535 Mgt 535 Mgt 556 Mkt 595	& Ethical Organizational Behavior Operations Management Quality Management Systems Change Management & Consulting Ethics & Leadership: Streets of Chicago Social Enterprise	M	gt501 gt507 gt508 gt535 gt536 gt570 gt595	Global Strategic Financial Analysis Strategic Supply Chain Management Global Sourcing and Procurement Quality Management Systems Change Management & Consulting Ethics & Leadership: Streets of Chicago Entrepreneurship and New Venture Management Social Enterprise Emerging Markets	

Interdisciplinary Electives (3		Interdisciplinary Electives		
courses)			• •	
Eco 423	Environmental Economics & Public Policy	Eco423	Environmental Economics & Public Policy	
Eco 424	Microeconomic Theory	Eco424	Microeconomic Theory	
Eco 425	Public Economies	Eco425	Public Economies	
Geo 441	Geographic Information Systems (GIS) for Community Development	Geo441	Geographic Information Systems (GIS) for Community Development	
GS B65 0	Religious Ethics & Economies	GSB650	Religious Ethics & Economies	
ML S40 9	Environment & Society (Cross listed w GSB595)	MLS409	Environment & Society (Cross listed w GSB595)	
ML S45 2	Great Ideas, Business & Society	MLS452	Great Ideas, Business & Society – now a core course.	
ML S46 2	Topics in Business Ethics			
MP S51 1	Sustainable International Development	MPS511	Sustainable International Development	
MP S60 4	Special Topics: Environmental Policy/Sustainable Source Reduction (Cross listed w GSB595)	MPS604	Special Topics: Environmental Policy/Sustainable Source Reduction (Cross listed w GSB595)	
MP S61 1	Management of International NGOs	MPS611	Management of International NGOs	
RE7 98	Special topics: Sustainable Building & Real Estate	RE798	Special topics: Sustainable Building & Real Estate	

APPENDIX 2 2nd MSSM Core Faculty Meeting - 2013



Institute for Business and Professional Ethics Urban Sustainable Management Programs

No. 2

MS in Sustainable Management (MSSM) Program Committee Meeting Minutes

Date: March 11, 2013

Present: John Andersen, Larry Bennet, Paul Bodine, Judy Bramble, Kathy Dhanda, Nina Diamond, Thomas Donley, Suzanne Cannon, Ali Fatemi, Euan Hague, Scott Kelley, Christie Klimas, Kevin McGuire, Jim Montgomery, Ron Nahser, Bel Needles, Kevin Stevens, Marco Tavanti, Andrew Thomas, Ken Thompson, Scott Young.

Unable to attend: Pam Cohen, Krista Johnsen Mikos, Margaret Posig, Christine Skolnik, Barb Willard

Overview

Building on our informative and productive first meeting of the MSSM Faculty (July 18, 2012 - Minutes in Appendix I), the primary purpose of this second meeting was to again convene involved, as well as interested, faculty members from four colleges (BUS, COM, CSH, LASS) for discussion about the structure and courses in the MSSM and the MBA Sustainable Management Concentration. As at the first meeting, the larger purpose was a progress report and problem-framing/solving meeting with members from *DePaul Sustainability Network* (DSN) Curriculum Working Group on how to continue the development and positioning of Sustainability and Sustainable Management within DePaul.

We again knew our agenda was ambitious to give shape to this broad-scoped, quickly evolving and growing subject of Sustainability and Sustainable Management – Appendix II. But, by the end of the vigorous and wide-ranging conversation among an experienced, invested and creative group of concerned faculty, three over-arching areas of work and development emerged:

- I. Governance of Curriculum
- II. Positioning Of Sustainability-Focused Degrees And Programs As Central Component To DePaul's Long-Term Sustainability
- III. Role/Place of the Sustainability Program Within DePaul

Kevin Stevens, who is serving on a program/degree development task force, suggested creating a list of issues that are "driving us crazy or holding us back" to address - since DePaul does not have the infrastructure in place to do handle a university wide effort like sustainability. The following minutes of our conversations provides such a list. Here are the topic areas, to give an overview and aid in your reading.

Topics at a Glance

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II. POSITIONING OF SUSTAINABILITY-FOCUSED DEGREES AND PROGRAMS AS CENTRAL	
COMPONENT TO DEPAUL'S LONG-TERM SUSTAINABILITY.	5
Attain Sustainable Critical Mass of Courses within the MSSM and the MBASM Concentration	
Sustainability Career Management Sub-subcommittee	
III. ROLE/PLACE OF THE SUSTAINABILITY PROGRAM WITHIN DEPAUL	
Office of Sustainability	
Continue to build on the DePaul Institutional Sustainability Plan (ISP) and the DePaul Sustainability	
Network (DSN)	
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I. RATIONALE FOR GOVERNANCE

The overriding question was: what is the function of this group. We determined quickly that this group should be connected with the DSN Curriculum Working Group – see Appendix II for its brief and, as such, on the most general level, was more of an information clearinghouse and advisory, coordinating and recommending body rather than a group with power for formal control and approval. See Appendix II.

Further, we saw that there are 3 levels of governance groups:

- 1. DSN Under this umbrella , there were two interrelated groups with specific tasks and levels of work:
 - a. New Interdisciplinary Sustainability Degrees/Programs Those involved in creation and development of new programs particularly the 4+1BA/MA/MS.
 - b. Sustainability MA/MS degrees there are at the moment, two: the MSSM and the MA in Sustainable Urban Development. The Core Faculty of the MSSM is charged with

making recommendations on the MSSM and the MBA Sustainable Management Concentration to the MGT and BUS Curriculum Committees. The MASUD is evolving a similar and separate structure within LASS.

A. DSN: Coordinate and Optimize the Sustainability Courses, Tracks, & Concentrations and Degrees Across the University

There are several sustainability concentrations underway, many of which incorporate courses from multiple schools, and students at different levels. It's important to coordinate these to ensure they are attractive to students, provide robust learning for all students with few gaps in learning and minimal overlap of course content – and are effectively marketed. (The latter is covered under Enrollment)

- 1. Further the work of the DSN Curriculum Committee Euan Hague and Evelyn Lulis Co-Chairs
- 2. Need: Look at the sustainability courses, tracks, & concentrations across the university and make recommendations to help ensure they are attractive to students and provide robust learning for all students with few gaps in learning and minimal overlap of course content.
- 3. Discussion
 - a. This is a new structural issue for the University, since it is the University's first true cross-university educational program and there is no university-wide process for coordinating course content. Courses and curricula traditionally have been coordinated/approved at the department and college level.
 - b. There are currently several concentrations/majors/minors and MS/MA degrees in various stages of development.
- c. Each program consists of a set of core courses plus a set of approved electives from which the students in the concentration/track can choose.
- d. The courses can be taken by students not in the concentration.
- e. The courses that make up these concentrations may be hosted by a variety of departments and schools across the University, and cross-listed. Each course is hosted in a single department. (This needs to be thought through carefully.)
- f. Many of the courses will be open to both graduates and undergraduates. Issues like the course level, rigor, parity, knowledge students must have coming in, prerequisites, etc. Kathy's MBA students complained of watering down content in a mixed grad/undergrad course. (This needs to be thought through carefully.)
- g. Cross-listing. Mixed views on cross-listing between Grad / Undergrad. Euan indicated LASS discourages multiple cross listing. Judy argued that ENV faculty may only be able to teach in MSSM if they are cross-listed because faculty can risk a course not running. Cross-listing guarantees a course will run. Some schools discourage cross-listing; Euan identified their 300 & 400-level courses as an example.
- h. Course Content Gaps & Overlap

- 1. Suzanne expressed concern that there may be significant content overlap from course to course, having experienced a large overlap between a real estate and public service course, including assigning the same textbook.
- i. Protections need to be put in place to that students cannot take two courses with similar content "take twice, learn once."
- j. Provisions must be made for students who want to create their own concentrations and minors.
- k. Kevin S: We need a competency matrix for each sustainability track.

B. New Degrees/Programs - 4+1 Sub-committee

- 1. Need: To sort through the various structure and course requirement options for hosted within the business and other schools for BA/MA/MS/LLD degree pathways and make a recommendation to the group.
 - a. Members: Kathy, Ali, Kevin S, Tom D, Scott Y, Marco, Ron
 - b. Discussion:
 - 1. There was much discussion about the structure of the concentrations/degrees (4+1, 3+2, etc.), and the number of required courses.
 - 2. Benefits of a 4+1 include a 25% tuition discount and counting 3 graduate courses toward an undergraduate degree. (Key question: which courses will double count?)
 - 3. There is no need for a subcommittee on the ENV 4+1 because they are already working through the process and have just received approval! So, Judy

 Bramble would be a valuable member of this committee since she has experience in building her BA-ENV Studies/MSSM 4+1 program.

C. MSSM Program Committee

1. Scott Young suggested that members serve as a Sustainability Approving Body for the curriculum of the MSSM program. It is intended that this Committee will act as the first filter, reviewing/approving from the point-of-view of sustainability, before sending it on to the department-of-origin's curriculum committee for their review/approval

After discussion, it was decided that the MSSM Core Faculty will be the MSSM Program Committee (MSSM PC) – see Appendix II for the list of courses and lead faculty.

- 3. 4 specific courses were discussed now to be decided by the MSSM CC:
 - a. Bel Needle's Integrated Accounting Reporting course was presented to the Committee for discussion. It is based on the work he is doing as a member of the U.N. Center for Trade in Geneva to develop a global sustainability reporting regimen that takes into account carbon reporting, etc.
 - b. Suzanne suggested moving the "Real Estate in the Built Environment" course up into the

- **Business Foundation Electives.**
- c. ENV 440 was discussed to be included as a core course.
- d. It was suggested that the MSSM have one fewer core course. It was further suggested that Communications be moved to the Foundation Electives list.

II. POSITIONING OF SUSTAINABILITY-FOCUSED DEGREES AND PROGRAMS AS CENTRAL COMPONENT TO DEPAUL'S LONG-TERM SUSTAINABILITY.

In preparing Vision 2018, a report by the DePaul University Expert Team for Sustainable Business Strategy was developed: "The Drivers of Sustainable Strategy." A key section of the report "The Academic Drivers of a Sustainable Business Strategy" lead with the "Curricular Portfolio" which stated that: the breadth and scope of DePaul's curricular portfolio is one of its greatest strategic strengths and recognized that the continuous development of new academic offerings is what ensures DePaul's academic vitality and financial viability." (See Appendix IV for more details.)

Fittingly, we believe that the *sustainability* and *sustainable management*-focused degrees and programs are a central response to the challenge of DePaul's *sustainable* business strategy laid out in the report.

While the MBA Sustainable Management Concentration is growing, we have presently just 1 student enrolled in the MSSM after its launch in 2013 WQ. And the MASUD is launching 2013 FQThis is the immediate task that must be addressed with EM&M and its various departments – marketing, and the career center in particular.

A. Attain Sustainable Critical Mass of Courses within the MSSM and the MBA SM Concentration

While there is much conversation and evidence that the demand is growing, (e.g. impressive growth of ENV Science and Studies enrollment) DePaul's sustainability-specific courses must quickly attain the critical mass necessary to ensure:

- Create a Sustainable Critical Mass of Courses and Students for MSSM and MBA SM Concentration
 - a. Need: Analyze, design, and create a gameplan for ensuring critical mass.
 - b. Business Rules: A minimum 12 students per class.
 - c. Members: Core Curriculum Committee (See Appendix III)
 - d. Discussion:
 - 1. When courses are cancelled, it has a negative impact on student enrollment and on DePaul's reputation.
 - 2. Options to Consider

- a. Cross-listing
- b. Establish a set curriculum at the beginning based on cohorts.
- c. Qualify/modify many existing courses as sustainable electives.
- d. Waive out of required courses a student has already taken.
- e. Minimize the number of approved electives (though this will make it less attractive to students).

B. Role of MSSM Marketing Committee

- 1. Need: Attract students into DePaul's sustainability program, concentrations, tracks, and courses.
- 2. Members: Ron, Nina
- 3. Discussion:
 - a. Increasing enrollments is the biggest need at the moment. Most agreed that EM&M will not effectively market or promote programs unless there is a champion working with them.
 - b. Several Committee members have experience they can share in promoting courses.
 - 1. Kevin S is chairing a task force to grow graduate programs.
 - 2. Ron is on the Academic Innovation Task Force which is preparing a report for the new provost.
 - 3. Scott Y pays for a magazine ad for the Sports Management program. Could there be one for Net Impact?
 - 4. Ali has done a ton of publicity with minimal effect.
 - 5. Kathy has experience emailing students.
 - c. Perhaps an undergraduate student sustainability group/club should be formed. People felt this would help with undergrads but not grads; grads are much more job-centric.
 - d. Euan/Suzanne suggested using a green leaf symbol next to sustainability courses in CampusConnect so students will know what counts and what doesn't. (Kevin S indicated that the Associate Deans would know how to make this happen. Euan will follow up.)

C. Sustainability Career Management Sub-subcommittee

- 1. Need: Create a thriving career sustainability marketplace at DePaul.
- 2. Members: TBD
- 3. Discussion:
 - a. The career center and internships are key to student demand for sustainability degrees and concentrations. This is especially true for our graduate students.
 - b. The career center reports up to EM&M. Start with EM&M.
 - c. Christa Hinton, head of MBA career management, suggested that two things will be required:
 - 1. Highly-respected faculty champion
 - 2. Industry advisory group to communicate corporate needs to us and

bring sustainability jobs and internships to DePaul.

- a. BUS Dean's Advisory Council Program and Curriculum
 "Sustainable Management Sub-Committee alumni and friends of DePaul.
- b. Sustainability officers at the City of Chicago and local corporations would be good candidates to serve on this group.

d. Ideas:

- 1. Attract government and corporate internships and jobs to DePaul.
- 2. Participate in career fairs.
- 3. 3. Partner with the Steans Center, Chaddick Institute, etc. to help with internships

III. ROLE/PLACE OF THE SUSTAINABILITY PROGRAM WITHIN DEPAUL

It was strongly expressed that, unless DePaul's sustainability program is rooted at a high enough level in the University, the program will not have the ability to grow the programs or budgets necessary to operate healthfully. It was suggested that the appropriate position is a University-wide Officeof Sustainability – in the Provost's office - reporting to the President.

While this need persists and we outline next steps below, we want to acknowledge the great progress over the past four years since the Sustainability Initiatives Task Force began, ad hoc, and moved quickly, broadly and deeply through Phase I engaging hundreds of stakeholders culminating with

President's approval of the DePaul Institutional Sustainability Plan,

1 year funding of research/study and ½ salary for the first Sustainability Coordinator

Signing of the UN Global Compact and Principles for Responsible Management Education at the University level – first university in the US to do so and only the 3rd in the world.

These accomplishments, as is always noted, continue to build on DePaul's enduring/evolving Mission and Values.

A. Office of Sustainability

- 1. Need: Identify if the university needs an Office of Sustainability and if so, how best to go about successfully recommending an Office of Sustainability.
- 2. Members: DSN
- 3. Discussion:
 - Sustainability and Urban Sustainability can be big differentiators for DePaul and need to be thought of accordingly.
 - b. It will involve and support all of the working groups of the Institutional Sustainability

- Plan ("ISP") equally.
- c. Get onto the Provost's and Academic Affairs' calendar to discuss the idea, then build out the structure and present them with a comprehensive, coordinated program that can approve and fund.
 - 1. Ken suggested that a solution be proposed to the Provost, since it would be unreasonable to expect a new Provost to be able to respond with a solution.
- d. Identify who should be a part of this conversation.

B. Continue to build on the DePaul Institutional Sustainability Plan (ISP) and the DePaul Sustainability Network (DSN)

Phase II of the ISP is well underway and an important part of DePaul's sustainability efforts.

- 1. Need: Build the DSN and its associated reporting and management organs.
- 2. Members: Jim, Scott K, Ron, and over 60 people in four working groups: Curriculum, Operations, Research, Engagement
- 3. Hired ½ time Sustainability Coordinator Kevin McGuire
- 4. Discussion:
 - a. Need a full-time person to be the connective tissue across the University, and at all levels.
 - b. Students would like to be able to see who else is taking sustainability concentrations.

Appendix I - Minutes from Initial Meeting of MSSM Faculty

Initial Meeting of the DePaul University MSSM Faculty July 18, 2012 - 10-12 CNA 801

I. IN ATTENDANCE

Driehaus School of Business / Kellstadt Graduate School of Business

John Andersen, Greenleaf Advisors, Adjunct Faculty

Paul Arthur Bodine, Paul Arthur Bodine.com and Adjunct faculty

Susanne Cannon, Chair, Department of Real Estate

Kathy Dhanda, Department of Management

Nina Diamond, Department of Marketing

Ali Fatemi, Chair, Department of Finance

Ron Nahser, Senior Wicklander Fellow, Institute for Business and Professional Ethics

Kevin Stevens, Director, School of Accountancy and Management Information Systems

Scott Young, Chair, Department of Management

College of Communications

Barb Willard, College of Communications

College of Science and Health

Judy Bramble, Chair, Department of Environmental Science and Environmental Studies

Pam Cohen, Adjunct faculty, Department of Psychology, Dix & Eaton, Sustainability Advisory Board,

University of Chicago's Graham School

Christie Klimas, Department of Environmental Science and Studies

James Montgomery, Department of Environmental Science and Studies; Co-chair, Sustainability

Initiatives Task Force

College of Liberal Arts and Social Sciences

Euan Hague, Chair, Department of Geography

Scott Kelley, Department of Religious Studies; Office of Mission and Values; Co-chair, Sustainability Initiatives Task Force

Krista Johnsen Mikos, Lifestreamcoaching.us and Adjunct faculty, School of Public Service, College of

Liberal Arts and Social Sciences (and Department of Environmental Science and Studies)

Christine Skolnik, Department of Writing, Rhetoric, and Discourse

II. MEETING AGENDA

Brief introductions and overview of Master of Science in Sustainable Management (MSSM)

Discussion of scheduling and logistics - Scott Young and RobRyan Opportunities, questions, concerns and risks Coordination with other existing or proposed MS/MA programs - e.g. see ENV ppt and MASUD proposal attached Next steps

III. MEETING NOTES

The meeting began with welcome and thanks for the successful effort. Each participant introduced themselves and briefly told of their involvement with sustainability.

Ron Nahser gave an overview of the Master of Science in Sustainable Management (MSSM) in the Department of Management the Kellstadt Graduate School of Business, noting some important contexts:

The MSSM moved quickly through the department, college and university levels approval process with praise and a round of applause for its interdisciplinary/multi-college curriculum after the University Faculty Council voted unanimously in favor on June 6.

Sustainable Management is closely aligned with DePaul's Vincentian mission Sustainable Management, broadly considered, is a vital and timely leverage point for DePaul's brand and identity

Sustainable Management has the potential to connect with the work of the United Nations, including the Global Compact, and the Principles of Responsible Management Education (PRME). (DePaul is the only major university who is a signatory of both at the university level.) MSSM development is an important part of the development of the DePaul Sustainability Network (Phase 2 of the presidential level Sustainability Initiatives Task Force)

After Ron's introduction to the MSSM and participant introductions, a number of key points were discussed. The notes below attempt to capture the highlights of the broad, rapid and rich conversation.

Core Courses. The core defines the program for students and employers (See MSSM Curriculum Committee's list attached – Appendix 1.)

Barb Willard suggested moving CMNS 529 to Interdisciplinary Elective and replacing it with MKT 798 Social Marketing and Nina Diamond agreed

Add ACC 500* to core bringing the total to 6 core courses (* Principles of accounting that includes sustainability-related concepts). Kevin Stevens would like to consult with advisory group

Along with ACC 500, there was much discussion around the need for and importance of math/quant skills, and general agreement that a minimum level of skills is required.

Other Courses.

Susanne Cannon offered her department's expertise in real estate development and buildings to the urban planning and other departments for whom buildings may be a component part of their studies, since an estimated 40% of greenhouse gases come from buildings.

Sustainable Business Conference.

Ali Fatemi described his vision for the conference as a place for students to showcase their work and as an academic conference. The annual conference could also be a space to develop the advisory board. He also envisions a second day for an academic conference on sustainable management teaching methods. Ron suggested this might connect with the work of the UN PRME secretariat, in which DePaul is active.

Administration of the MSSM.

There are several areas of concern that need to be addressed in the administration area:

Scheduling. Courses will need to be cross-listed, scheduled and coordinated especially during the start-up phase to ensure that students can complete the course work within the 2 year timeframe (6 quarters). Course offerings shouldn't conflict with other sustainability offerings

Cohort? Does a cohort format make sense? This would be a major revision to the MSSM proposal, but some felt it was worth exploring

Tracks? Do tracks or concentrations make sense for the program? One track might focus on quant; others on marketing or operations. Euan suggested that other graduate programs could be viewed as tracks.

Required Internship? While not part of the original proposal, maybe the MSSM could develop opportunities and eventually require an internship

Admission / Pre-reqs. GMAT required, but students in 5 year program can waive out of it or have necessary courses built in.

Delivery. Since the curriculum content is innovative – and deals with sustainability – we should consider on line, hybrid or condensed delivery as well. (See Appendix 2 for examples of such programs)

MSSM Orientation.

To give students an overview of the program we plan 3-5 day orientation that includes

Preview of key concepts and texts.

"numbers boot camp" to ensure the students are able to communicate the benefits of their solutions to decision-makers using financial arguments – make the business case (similar to the one for the MS in Wealth Management). This may be optional for students who test out of it. overview of project management,

identification of possible projects to be developed over the program introduction to Digication ePortfolios which will be a thread through the program.

Connection to other Graduate Programs.

While the MSSM is the first graduate program in sustainability, there are at least four others in various stages of development:

MA in Sustainable Urban Development, LASS - in final stages of approval.

MS in Environmental Management, CSH – preliminary outline
MA/MS in International Sustainable Development, LASS/SPS - under way
MA/MS in Sustainability Governance, Public Policy -very preliminary thinking
Greg Mark, dean of the College of Law has indicated interest in 6 year BA/JD program

Key Questions / follow up items:

How will these programs relate to one another?

Euan suggested that these graduate programs could be viewed as tracks within a
University-wide urban sustainability program which would give overall coordination and
coherence to DePaul's sustainability offerings.

Can/should they share common core course(s)?

- It was suggested that all students in all DePaul sustainability degree programs take the same overview course or core courses, perhaps something pertaining to urban ecology like Jim Montgomery's ENV 506.
- o It was suggested that the students also share a project-based capstone course in which they all come back together to learn from each other and tie the whole world of sustainability together. This would put graduates on the street who not only have a deep experience in one aspect of sustainability, but also an interdisciplinary understanding and a network of contacts in the others.

How do we handle differential pricing? Please send questions to Kevin Stevens. How will they avoid "cannibalizing" or subdividing the market too much?

MSSM Interdisciplinary/Multisector Advisory Board.

We discussed at some length the need for building a Sustainable Management Advisory Board that includes leaders from many disciplines and the many sectors impacting the economic, social and physical environment: for-profit, non-profit, and representation from government/public policy. One starting point would be to build from the list of past participants from the Sustainable Business conference. (Pam Cohen and John Andersen have agreed to help with this effort.)

The advisory board is important for a number of reasons

To help identify the nature and types of jobs MSSM graduates can expect to work in upon graduation. This continuing source of information will help shape and develop the curriculum as the field continues to evolve.

To create the possibility for internships and placement opportunities

To provide input on the nature of the quantitative skills necessary for graduates

To provide input on the type of accounting skills useful for graduates, as part of a modified version of ACC 500

To provide input on the need and focus for tracks within the MSSM

To further expand and develop the Sustainable Business conference

To provide a platform for the Chicago community to access DePaul's considerable educational resources in the area of urban sustainability.

Appendix 1

MSSM Proposed Curriculum (Approved 6.6.12. Modified 7.18.12)

Core Courses (6 required courses – 24 hours). All courses are 4 credits MGT

\ <u>1</u>	,
515	Sustainable Management (first quarter)
ENV 506	Earth Resources and Human Society
ACC 500	Financial Accounting (title and content tbd.) FIN
559	Sustainable Value Creation
MKT 798	Social Marketing (title and content tbd.)
GSB 595, MPS 60	04, MLS 490 Developing Sustainable Strategies: Practicum
(Capstone)	

Note: Potential Tracks/Concentrations may be developed from the following Electives – other courses to be added.

Business Foundation Electives (Choose 3 courses – 12 hours) All courses 4 credits) ECO

509	Business Conditions Analysis
MGT 50	Managing for Effective & Ethical Organizational Behavior GSB
420	Applied Quantitative Analysis
MGT 50	Operations Management (GSB 420 is a pre-req)
MGT 50	Quality Management Systems (MGT 502 is a pre-req) MGT
556	Ethics and Leadership: Streets of Chicago
MGT 59	Social Entrepreneurship
MGT 53	Change Management (MGT 500 is a pre-req) MKT
798	Emerging Markets

Interdisciplinary Electives – (Choose 3 courses - 12 hours) All courses are 4 credits.

J —	
ECO 798	Environmental Economics and Public Policy ECO
798	Microeconomic Theory
ECO 798	Public Economics
CMNS 529:	Special Topics in Multicultural and Organizational
	Communication - Environmental Rhetoric & Politics
MPS 604	Special Topics –Environmental Policy & Sustainability MPS
511	Sustainable Development and NGOs
MPS 611	Management of International NGO's RE
798	Sustainable Building & Real Estate
GEO GIS 441	Geographical Information Systems (GIS) for Community
	Development
MLS 409	Environment and Society MLS
442	Ethics and the Economy
MLS 452	Great Ideas, Business, Society

Appendix 2

This list of sustainability courses was subsequently provided by Christine Skolnik who has considerable experience with distance learning. She suggested we look at them for possible models.

- o Harvard: http://ksgexecprogram.harvard.edu/Programs/OnLine.aspx
- Northwestern:

 http://mppaonline.northwestern.edu/info/?utm_source=NU_MPPA&utm_medium=KP&utm_campaign=KP_traffic&src=SCS_MPPA_Campus_Info_Text
- o Pepperdine: http://mbaonline.pepperdine.edu/lp-mba-combo/?Access_Code=PEP-MBA-GOOGLE&kwd=%2Bmba%20%2Bonline&gclid=COS42ZH5o7ECFUgDQAodHQ99eg

Appendix II- Agenda for MSSM Curriculum Committee WQ Meeting – March 11, 2013

- 1. Opening comments and briefintroductions
- 2. Development update of the *DePaul Sustainability Network* (DSN) and the DSN Curriculum Working Group. Comments: Euan Hague Co-Chair.

Attached Sustainability/SITF/DSN presentations to:

- Academic Council Dec. 2012
- Institute for Business and Professional Ethics -Feb. 2013
- 3. Overview and review of
 - MSSM (approved proposal attached with post MSSM CC recommendations),
- MBA Sustainable Management Concentration http://www.depaul.edu/university-catalog/degree-requirements/graduate/business/sustainable-management-mba/Pages/concentration-requirements.aspx
 - Discussion of suggested new courses ACC 557 and ENV 440 to be included.
- 4. Opportunities, questions, concerns and risks (e.g. tracks/concentrations, student recruitment and advising, library resources.)
- 5. Proposal under way for the ENV/MSSM 4+1program Judy Bramble. Updated attached proposal. Possible other 4+1 programs: BUS, Honors, etc.
- 6. Coordination, marketing and branding with other existing or proposed MS/MA programs, especially the MASUD, and the role of DSN.
- 7. Next steps

Appendix III - Excerpt from DePaul Institutional Sustainability Plan

Vision and Plan for Sustainability at DePaul University

Summary of Key Recommendations and Attendant Objectives Proposed by the SITF Working Groups

http://mission.depaul.edu/Programs/Sustainability/Pages/default.aspx

Judging from the significant data collected for the STARS® audit, it is clear that DePaul has been engaged in the three pillars of sustainability for some time, as they are closely aligned with its mission. However, the SITF also believes that sustainability can become an essential articulation of DePaul's Catholic, Vincentian, and Urban mission in the 21st century – one that can continue to be cultivated in the future. With a more coordinated focus on enhancing sustainability activity throughout its C.O.R.E., DePaul can take a leadership role in the higher education landscape as well.

Below are the overarching recommendations to enhance DePaul's sustainability profile that were identified by the five Working Groups.

Curriculum Working Group

Key Recommendation: The University should expand and develop sustainability related and sustainability focused curricula.

Objective A	Increase the overall number	of courses the university	y offers that are

sustainability-related and sustainability-focused

Objective B Expand and broaden sustainability focused learning outcomes

Objective C Develop new programs examining sustainability

Objective D Conduct a Sustainability Literacy Assessment of the student body

Members:

Dr. Euan Hague(LAS; Chair, Department of Geography) – Co-chair

Dr. Evelyn Lulis (CDM) - Co-chair

Dr. Shayna Connelly (CDM)

Dr. Jean-Phillippe Labruyere (CDM)

Dr. Suzanne Cannon (COM; Department of Real Estate)

Dr. Phil Stalley (LAS; Department of Political Science)

Dr. Kelly Tzoumis (LAS; Chair, Department of Public Policy Studies)

Phil Timberlake (TTS)

Dr. Kevin Downing (SNL)

Dr. Christie Klimas (LAS; Department of Environmental Science and Studies)

Dr. Nina Diamond (COM; Department of Management)

Appendix IV -ISP Announcement Letters of Support

E-mail Letters Announcing the DePaul Institutional Sustainability Plan

1. Fr. Dennis Holtschneider

Dear Colleagues,

I am happy to share the final report of the Sustainability Initiatives Task Force with you. This report represents the first step in a university-wide conversation about possible ways to move sustainability forward at DePaul. I am very grateful to the task force members for all their work over the last year. Now the broader university must determine how to take the next steps toward a sustainable future.

The report offers many approaches for the university to consider implementing as we look to achieve our larger sustainability objectives. Some of these recommendations are already underway, and efforts may be heightened without much difficulty. Others may be limited by existing city codes or will require negotiation and prioritization due to their significant impact on human and fiscal resources. I hope you will engage the report and allow it to guide the next round of sustainability discussions. You will find the report at http://mission.depaul.edu/Programs/Sustainability/Pages/default.aspx.

The work of the Sustainability Initiatives Task Force now moves into its second phase, the creation of the DePaul Sustainability Network (DSN). This network will enlist the input of the university community regarding the ways we might move forward in realizing this plan.

I sincerely appreciate the enormous amount of time and effort that this task force of more than 60 people dedicated to evaluating our current practices and developing recommendations. Together, we can create a more sustainable DePaul and build a better future for generations to come.

Sincerely,

Rev. Dennis H. Holtschneider, C.M. President

2. SITF Co-Directors

Join us in creating a Sustainable Learning Community

Dear Colleagues,

Sustainability is nothing new to us at DePaul; we have found sustainability to be a very important thread woven into DePaul's institutional fabric. A contemporary version of the centuries old Vincentian question,"What must be done?" was asked during one of four university-wide sustainability roundtable discussions in Spring 2011: "In what ways does the focus on sustainability function to build DePaul's capacity to be an agent of social transformation?" The now completed Institutional Sustainability Plan (ISP) provides a launching pad to address this important question.

The plan is not a blueprint or set of directives, but rather a baseline audit of activity and list of proposed recommendations. It is a living document that will develop with the university as we continue our journey of becoming a leader in sustainability in higher education.

Over the past two years the Sustainability Initiatives Task Force (SITF) has been working diligently to develop this plan to further DePaul's mission of becoming an agent of social change in regards to sustainability. We are proud to present this ISP, the first of its kind at DePaul. It reflects the work of over 60 people that met numerous times to fulfill Father Holtschneider's charge to the SITF. In this document you will find a broad overview of sustainability-related activities occurring on campus and a set of recommendations for realizing DePaul's sustainable learning community.

The SITF will continue its work through AY 2012-13 to better formulate the ideas in the plan. We will solicit comments and reactions to the plan from the university community, engage in discussions on what it would mean to create a sustainable learning community, and test the feasibility of some of the recommendations made in the plan.

The ISP covers a broad range of areas and topics, including curricula, operations, administration, research, and engagement. Auditing activity across such a diverse range of areas requires a sound instrument for collecting, compiling, prioritizing, and evaluating data. The SITF chose the Sustainability Tracking Assessment and Rating System (STARS) created by the Association for the Advancement of Sustainability in Higher Education as the most appropriate tool for assessing how we – as an institution of higher education – can establish a baseline for future improvement. In many areas the data paints a fairly clear portrait. In other areas, however, we simply have never collected data before.

We are deeply grateful to the members of the SITF and the five working groups who made this possible through their generous service to the university. As you read through the ISP we ask that you consider participating in a network of people working to sharpen, reshape and implement some of the recommendations contained in the report. Over the next year we will be creating the DePaul Sustainability Network (DSN). We welcome participation from across the university community. If you

are interested in getting involved in the DSN, please contact Jim Montgomery or Scott Kelley (jmontgom@depaul.edu; skelley6@depaul.edu).

Please join us in the ISP's realization and help us be an agent of social transformation through our Catholic, Vincentian, urban mission. We look forward to the challenge ahead as we continue to build our sustainable learning community.

On behalf of the SITF,

James Montgomery, Associate Professor, Department of Environmental Science and Studies

Scott Kelley, Office of Mission and Values; Assistant Professor, Religious Studies Department

Appendix V - MSSM Curriculum Committee

Founding Faculty - Core Courses (6 required courses – 24 hours) All courses are 4 credits

MGT 515	Sustainable Management (first quarter) – Kathy Dhanda
ENV 506	Earth Resources and Human Society – James Montgomery
ACC 500	Financial Accounting (title and content to be determined) – Kevin Stevens
FIN 559	Sustainable Value Creation (We recommend that this be a GSB course) – ${\bf Ali}$ ${\bf Fatemi}$
MKT 798	Sustainable Marketing (Contentto be determined) – Nina Diamond
	NAIC 400 Developing Creatinghia Streets rice, Dreeting / Constant Page

GSB 595, MPS 604, MLS 490 -Developing Sustainable Strategies: Practicum (Capstone - Ron Nahser, Scott Kelley

Appendix VI - The Drivers of Sustainable Strategy

Excerpt from "A report by the DePaul University Expert Team for Sustainable Business Strategy"

Version 1.1b for Board of Trustees Review October 26, 2011

The Academic Drivers of a Sustainable Business Strategy – Curricular Portfolio: p. 18

There is a key paragraph – complete section follows - in this insightful report which applies directly to our work in developing sustainability and sustainable management of programs. It states:

"The ongoing strengths of DePaul's curricular portfolio requires

- 1. Continuous assessment and development of existing programs and curriculum to ensure currency, quality and relevance.
- 2. New program/curriculum development in areas directly related to current DePaul schools/colleges/programs
- 3. Development in areas entirely new to DePaul that respond to new market opportunities.

While the faculty hold the primary responsibility for curricular/program development, Academic Affairs provide support and leadership by underwriting new academic program research, development and implementation. This process includes both the support of faculty – initiated new programs as well as intentional exploration of opportunities beyond existing DePaul disciplines and expertise

THE ACADEMIC DRIVERS OF A SUSTAINABLE BUSINESS STRATEGY

Our review of the university's business strategy begins and ends with an affirmation of the primacy of the academic enterprise. For DePaul's academic programs and purposes to be the primary drivers of sustainability in our business strategy, they have to realize a number of core outcomes: 1) the programs of study must respond to student interest and attract the appropriate student mix; 2) the curriculum, teaching and advising must assist students in meeting their goals including gaining the knowledge and skills required to obtain or advance careers; (3) the overall student experience and outcomes must be of high quality and value consonant with the institution's cost; 4) the academic programs must support a faculty mix with a balance of teaching and scholarship; and 5) the constellation of academic programs must be delivered in a financially balanced model that meets institutional needs.

The core academic drivers of such a business strategy can be considered as three distinct portfolios: the Curricular Portfolio, the Faculty Portfolio and the Fiscal Portfolio. The Expert Team actively developed and reviewed extensive data regarding these three dimensions of the academic drivers of the business model as a context for planning. Some of that discussion is presented in this brief narrative. The critical development to date was laying the foundation for ongoing review and modeling of the business impact of changes in these dimensions of university activity.

Curricular Pertfelio

The breadth and scope of DePaul's curricular portfolio is one of its greatest strategic assets. The variety of undergraduate and graduate academic programs positions DePaul as a comprehensive university and supports its academic reputation and brand. Practically, the sheer breadth of DePaul's program offerings has enabled the university to sustain a steady trajectory of growth over the years, as the entire portfolio balances out the periodic ebbs and flows of market demand for particular programs, disciplines and career areas. "

The ongoing strength of DePaul's curricular portfolio requires: 1) continuous assessment and development of existing programs and curricula to ensure currency, quality and relevance; 2) new program/curriculum development in areas directly related to current DePaul schools/colleges/programs; and 3) new program development in areas entirely new to DePaul that respond to new market opportunities. While the faculty hold the primary responsibility for curricular/program development, Academic Affairs provides support and leadership by underwriting new academic program research, development and implementation. This process includes both the support of faculty-initiated new programs as well as intentional exploration of opportunities beyond existing DePaul disciplines and expertise.

Critically important to any sustainable business model is the continuous development of new programs in higher margin parts of the curricular portfolio. Currently, 12.5% of students are enrolled in programs developed in the last five years, with an even higher percentage in graduate programs. DePaul's market research suggests that the greatest potential opportunities to enhance enrollments are in professional programs, with strong potential in the health sciences (where DePaul can begin capitalizing on the new College of Science and Health) and technology (where DePaul has long benefited from significant curricular innovation in the College of Computing and Digital Media). Other potential growth areas include continuing and professional education in non-degree programs, leveraging existing capacities—such as through new summer quarter initiatives and the continued development of comprehensive online strategies as service to existing students and/or as a growth and revenue strategy.

The ongoing review of the entirety of its curricular portfolio and the continuous development of new academic offerings is what ensures DePaul's academic vitality and financial viability. The Expert Team recommends a comprehensive review of DePaul's current approach to coordinating and supporting this critical process across all schools and colleges and finding ways to be improve the support for this process.

The Drivers of Sustainable Strategy

Page 18 of 35

Appendix VII - Summary: Sustainability Progress at DePaul

Below are highlights from a report Pat Werhane made to the board of the Institute for Business and Professional Ethics for a proposed merger of ISN/DSN and IBPE. The 1 page summary distributed at the meeting follows.

- 1. We are now in Phase II of the ISP. This phase involves developing a DePaul Sustainability Network ("DSN") to further DePaul's mission of becoming an agent of social and environmental systemic change. This work is being financed by the President's office until June 2013 with the particular goal of hiring a part-time DSN coordinator.
- 2. We will employ the language ('brand") of urban sustainability and sustainable management. Our goal is to develop and implement the "Best urban sustainability and sustainable management programs in the world", which we are on track to do, building on DePaul's Mission and Values.
- 3. Sustainability has been tied to the Vision 2018 Plan: http://offices.depaul.edu/president/strategic-directions/vision-2018/Pages/default.aspx
- 4. DePaul has a comprehensive sustainability section on its website, currently hosted within the Office of Mission & Values:
 http://mission.depaul.edu/Programs/Sustainability/Pages/default.aspx
- 5. MBA Sustainable Management Concentration is growing quickly up from 15 last year. One student is now enrolled in the just-launched MSSM concentration.



INSTITUTE FOR BUSINESS AND PROFESSIONAL ETHICS

Potential Partnership of IBPE and the DePaul Sustainability Network (DSN).

Ron Nahser's Report to IBPE Board, Feb. 27, 2013

During the past 3 years, a University-wide Sustainability Initiatives Task Force (SITF) of over 60 members in four working groups – Curriculum, Operations, Research and Engagement - led by:

James Montgomery SITF Co-director: Environmental Science and Studies Department, College of Science and Health (CSH)

Scott Kelley, SITF Co-director; Asst. VP, Office of Mission and Values and Religious Studies Department, College of Liberal Arts and Social Sciences (LAS)

Ron Nahser, SITF Strategic Advisor; Senior Wicklander Fellow; Director, Urban Sustainable Management Programs; and consultant to the deans of LAS, CSH, and Driehaus College of Business (BUS),

have been working diligently to develop the *DePaul Sustainability Network* (Phase II of the *Institutional Sustainability Plan*) to further DePaul's mission of becoming an agent of social and environmental systemic change, employing the language ('brand") of urban sustainability and sustainable management.

Given SITF's broad scope, it is the first of its kind at DePaul:

http://mission.depaul.edu/Programs/Sustainability/Pages/default.aspx

Recently, the leaders have met numerous times with the members of the Institute for Business and Professional Ethics. (IBPE) to discuss moving the DSN under the direction of the IBPE.

During these three years the Sustainability Initiatives Task Force has accomplished the following:

ADMINISTRATION

Ad Hoc Sustainability Group formed in fall of 2009 and developed a University-wide Sustainability White Paper.

Phase I (2010): Established the SITF as a Presidential-level initiative (one of only two)

Phase II (2011) Established the DePaul Sustainability Network with President's Office's financial support for hiring a part-time DSN coordinator.

Recently established the "Urban Sustainable Management Programs" in the IBPE.

CURRICULUM:

MBA Concentration in Sustainable Management

Cross disciplinary MS in Sustainable Management (MSSM) (BUS)

Cross disciplinary MA in Sustainable Urban Development (MASUD) (LAS)

5 year program - BA in Environmental Studies with Concentration in Sustainability as pathway to MSSM or MASUD.

Minor in Urban Agriculture

COMMUNITY:

Three "Sustainable Business" conferences - Finance Department

2 Art and Science of Climate Change Panel Presentations

Global Reporting Initiative Workshop and other organizational partnerships.

Work with UN Global Compact and Principles for Responsible Management Education Secretariats:

http://www.unprme.org/global-forum/prme-rio-20.php

DePaul Urban Garden

DePaul Earthweek activities coordinator

Established "Sustainable Management Subcommittee" in the Driehaus College of Business Dean's Advisory Council

As the next step in the evolution of DSN - Phase III- Ron will explain, at the Board meeting, why this merger would be propitious and outline their future directions - for the Institute, DSN and for the University.

Pat Werhane - Director

APPENDIX 3 1st Urban Sustainable Management White Paper - 2009

Institute for Business and Professional Ethics

A "White Paper" for the Institute for Business and Professional Ethics Board of Directors

Ethics Outreach: An Opportunity for
DePaul University, Colleges of Commerce and LA&S,
Kellstadt Graduate School of Business and their
Institute for Business and Professional Ethics
In a Changing Urban Environment.

By Ron Nahser, PhD (DePaul, 1995)
Provost Emeritus

Presidio School of Management (2004-2008)

Executive in Residence Kellstadt Graduate School of Business (1982-1994)

Overview

The Board of Directors of the Institute for Business and Professional Ethics (IBPE) in the College of Liberal Arts & Sciences, College of Commerce and the Kellstadt Graduate School of Business at DePaul University wants to actively direct the efforts of the IBPE <u>outward</u> to engage businesses and organizations in the newly adopted goal of the Institute: "Addressing Poverty Through Profit." This is not only a bold vision, but one which touches on the heart of the Vincentian Mission of DePaul University.

DePaul has been described as a "practical university with a lofty goal," helping students be leaders in service to the community driven by igniting their values, vision: "like a great fire" as Vincent de Paul has put it.

IBPE is uniquely positioned to help individuals and organizations inquire into the challenges they face and decide on plans of action based on their values.

Just as Vincent DePaul lived in times of great challenge and change, so too do we.

Therefore, the primary focus of this "white paper" will be to put this vision in the context of engaging IBPE's market in exploring what the challenge and impact of <u>Sustainability</u> – present and emerging environmental and societal concerns – will have on organizations' strategies in creating and delivering value to their stakeholders.

While the fundamental task of examining the values and visions – the ethics - which drives us individually and as a community of organizations is not is new, the focus of Sustainability offers a new framework, data and language within which to conduct the eternal values and vision inquiry.

Such a process of values and vision inquiry can be the next step in the perennial search for compelling and practical – pragmatic - ways to engage leaders in the practice of corporate social responsibility and ethical decision-making for which DePaul and the College of Commerce has long been in the lead.

The aim of this "white paper" is to outline preliminary thoughts on a strategy and "products" to further this vital work within the context of the larger DePaul Mission and within the dramatic changes in the urban and business environment.

I. Vision

DePaul University's College of Commerce, the Kellstadt Graduate School of Business and their Institute for Business and Professional Ethics are in a unique position to take a next step in its outstanding history of educating future leaders based on DePaul's unique Vincentian mission.

"The principal distinguishing marks of the university are its Catholic, Vincentian, and urban character." (From the Mission Statement – 1991).

The task always for the educational Vincentian mission has been concern for justice and for the poor.

The University 2012 goals are:

Goal I Enrich academic quality

Goal II Prepare students to be socially responsible future

leaders and engaged alumni

Goal III Be a model of diversity

Goal IV Selectively increase enrollment

Goal V Strengthen financial position

Goal VI Further Institutionalize DePaul's Vincentian and Catholic identity

The Mission of IBPE:

In collaboration with businesses, community organizations and academics worldwide, the Institute encourages a dialogue and understanding among decision-makers by stirring the moral conscience, encouraging moral imagination, and developing models for moral decision-making in business. These goals conform to DePaul's mission that upholds the Vincentian values of integrity, community, service, diversity, faith, and education. The Institute provides a forum for exploring and furthering ethical practices at DePaul, business organizations, and the community at large; and runs a network of faculty and business leaders dedicated to building a rich academic exchange and a more ethical business environment. The Institute also coordinates graduate and undergraduate business ethics courses at DePaul and encourages the integration of business ethics throughout the College of Commerce curricula. The Institute also conducts seminars, conferences and outreach programs.

I. **Students:** Teaching students ethical practices and inspiring them to engage in social justice initiatives;

- II. **Business**: Advancing ethical practices in business organizations in the Chicago area; and
- III. **Community:** Catalyzing the for-profit sector to address poverty through active engagement, both locally and globally.

II. Background - The Need and the Opportunity

Climate change, energy supply, threatened eco-systems, and growing scarcity of natural resources are joining the long and daunting list of traditional ethical and human rights concerns such as poverty, globalization and job displacement, unequal distribution of wealth and access to social resources, gender issues, population growth, regional conflicts, and decaying urban environments.

Increasingly, the constantly evolving conversation about Corporate Social Responsibility (CSR) is being broadened under the much used, and little understood, banner of "Sustainability." The business case for Sustainability is now being made in boardrooms around the country in companies such as Wal-Mart, GE and Sun Microsystems and many other industry leaders. They are searching for and finding the competitive advantage and bottom-line benefits of integrating sustainability and social concerns into their core business practices.

Midst the rising flurry of investigations attempting to document the financial impact of sustainability practices, a recent report from Goldman Sachs stands out. They found that, by their measurements, companies who are considered leaders in environmental, social, and corporate governance (ESG) outperformed the general stock market by 25% since August 2005.

By providing foresight and insight into the future needs of society, business has shown over the past several hundreds of years that it has the power and incentive to mobilize resources and influence consumer and cultural behaviors. Today virtually everyone – business friend and foe alike - increasingly acknowledges that business as the dominant and vital force in the world must exercise its capacity to create large-scale change. Therefore, now it is time to put those powers to work in ways that will address our most critical environmental, economic and social challenges.

But business can't address these issues alone. To mention just one well-known example: The U.N. Global Compact last year brought together leaders from 90 countries and every sector -- business, government, civil society and academia – to advance sustainability principles in mainstream business activities.

As the world's largest voluntary corporate citizenship initiative, the conference produced a range of initiatives including a plan for academic institutions to advance social and environmental responsibility into curricula and research. This is the first large-scale initiative of its kind and was created in partnership with the Association to Advance Colleges and Schools of Business (AACSB), of which DePaul is an accredited member.

(http://www.unglobalcompact.org/newsandevents/news_archives/2008_04_07.html)

Opportunity for Business Schools

Executives and business schools are recognizing the overwhelming need for businesses and organizations to rethink how they're going about their business. And perhaps more importantly students today who have been made aware of ecological issues from early childhood are raising questions and concerns about the way businesses are run and the kind of education they will need to help have fulfilling careers serving the needs of society.

Further, AACSB has just recently held its first ever conference on Sustainability with record attendance. This statement is from the cover of the conference brochure:

"Amid urgent environmental issues, resource constraints, shifting global markets, and rapid technological advances, our world hangs in a delicate balance. Societal and ecological impacts must be considered in each business decision made. Industries have the power to become instruments of positive change, but where do they begin?"

By concluding with the phrase "...where do they begin" the conveners of the conference are assuming that the "why?" is answered. We would also ask the "how?" question.

Evidence of this growth of interest in business schools is the exploding number of centers and programs being offered in business schools around the country to help corporations address ethics and social concerns and they are now adding sustainability. (Aspen Institute estimates that there are now over 600 such centers at schools in the US. One example is the success of Presidio School of Management. See Appendix for a description of this program, as well as a competitive analysis.)

These needs bring together a unique opportunity for mission-driven educational institutions, and especially for DePaul which seeks a specific engagement on service to the community as the basis of preparing students to be socially responsible future leaders.

III. Unique Opportunity for DePaul University to Meet the Need

IBPE GOAL II: Business

Advancing ethical practices in business organizations in the Chicago area.

Aligned with DePaul VISION 2012 Objective 2a:

Expand and develop purposeful co-curricular activities to promote leadership, civic engagement, cultural awareness and personal and spiritual development.



As a leading educational institution in Chicago, DePaul has the opportunity to further the implementation of its Mission to educate business students, managers and leaders of all kinds of organizations in management practices for our changing times. And most importantly and specifically for DePaul, to help executives inquire into what they should, can and must do. Determine practical action plans driven by their values and vision.

The focus on sustainability, we believe, offers a way to connect concern for social responsibility and justice with the actual strategy of leading and managing all the different businesses and organizations which serve society's needs.

Here is a brief overview why this hypothesis is not only plausible but needed and compelling.

An Hypothesis

Economists are unusually single-minded in preaching that businesses need to take a longer or broader view of their time horizon and responsibilities. (They, of course, differ greatly as to "how.") Sustainability offers a framework with hard data to show why the longer term view is not only important but potentially profitable.

Since DePaul has been in the vanguard through decades of work in engaging students in ethical reflection, there is an opportunity to take the next step in the development of this central educational task.

Executives today, who have been made aware of ecological issues from the demands of the marketplace and are reminded daily in the media, are raising questions and concerns about the way businesses are run and the kind of practices they will need to help guide their organizations to better and responsibly serve the needs of society.

And students, exposed from a young age to the concerns about the environment, are looking for educational opportunities which will enable them to pursue meaningful careers to address these questions.

As an example, the most obvious immediate need is to help organizations develop and understand metrics concerning their use of carbon-based energy and its impact on global warming; the most common measurement is their "environmental or carbon footprint." Members of the accounting profession - and all the leading accounting firms are holding seminars and conferences on the subject – see the opportunity to analyze the environmental impact and analyze the potential business case for sustainable management. Given DePaul's exceptional accounting education expertise, this is a significant advantage building on DePaul's competencies.

Further, accounting and finance professionals are examining a broad range of corporate practices which fall under rubric of ESG (environment, social and corporate governance) mentioned above. This gives the mind and heart raising task of re-thinking virtually every business discipline from the

perspective of serving the long-term needs of society. Beginning the task is to start, challenging the sacred cows of "economic growth" and "maximizing return to shareholders."

Therefore, while DePaul's Vincentian mission has been focused on serving the poor, and since business represents a way for a more equitable distribution of resources, it is a small step to include concern for natural resources in this care and stewardship for the needs of society and the environment – Creation and the Common Good - within which we all live, work and depend on.

We believe DePaul, of all the colleges and universities in the Chicago area is uniquely qualified to help the leaders of corporations and organizations take this longer-term social view of their purpose, vision, values and strategies. While some have particular technical focus (Kellogg SOM in marketing and Chicago GSB in economics and finance) and others are stressing service (Loyola), only DePaul can combine the practical business skills, Vincentian mission of service to the poor, and a focus on the urban Chicago environment.

IV. Chicagoland's Changing Urban Area;

GOAL III: Community

Catalyzing the for-profit sector to address poverty through active engagement, both locally and globally

Aligned with DePaul VISION 2012 Objective 2a, 2b, 6d:

2a. Expand and develop purposeful co-curricular activities to promote leadership, civic engagement, cultural awareness and personal and spiritual development.

2b. Become a university known for its students' lifelong commitment to social justice and

2b. Become a university known for its students' lifelong commitment to social justice and civic engagement.

6d. Externally, be well-known for civic and community engagement and a commitment to the common good as expressions of our Vincentian, Catholic and urban identity.

Anyone who has listened at all to Mayor Daley in recent years knows of his strong support of making Chicago the greatest – and greenest - city in the world. He builds on the fact that Chicago has always been changing starting with the Chicago fire, sponsoring the 1893 World's Fair (with 20 million visitors, he reminded the International Olympics Committee in Beijing recently), and even going back to its earliest vision of building a city on an unlikely swamp.

He sees it as a way of getting jobs and bringing technology and new businesses to Chicago. The evidence is all around us who travel through downtown civic buildings, parks and boulevards. Millenium Park is, afterall, the world's largest rooftop garden.

The most obvious immediate example facing Chicago as well as every other city and organization, is the need to move to a so-called Post Petroleum age and reduce our reliance on fossil fuels. But Daley also sees these issues as opening a way to address our problems of poverty and crime, which would be greatly impacted by a "green" economy, creating "green collar" jobs. This is a global problem and which will become the vividly apparent during the upcoming Olympics in Beijing with the concern for the athletes' safety due to smog.

And since Mayor Daley is most eager to bring the Olympics to Chicago in 2016, you can be sure that he is considering every aspect of sustainability and human rights as we compete with other cities from around the world. (We all know how worried China and the International Olympics Committee are about the quality of air – not to mention human rights - during the Summer 2008 Olympics. This is why the IOC is so determined to be sure future host cities are models of a sustainable city.)

A major element of this is that DePaul recognizes its role as a part of the greater Chicago metropolitan area. This historic and urban context has helped to drive DePaul's vision and mission.

Finally, it is well to remember that Chicago's motto is "urb in horto" - city in a garden – which is stitched into every policeman's shoulder patch and graces the city seal in every public building. This unique perspective can bring together the full understanding of how every organization and business fits within the working of the larger context or system...the common good...which lies at the heart of sustainability awareness.

V. Institute for Business and Professional Ethics

As noted above, the DePaul College of Commerce has been in the lead teaching ethics within its business curriculum. A major step was the founding of the Institute for Business and Professional Ethics in 1985.

Its present director, Dr. Patricia Werhane, is a widely recognized as a global leader in ethical education in business schools. Since what is at stake today is nothing short of examining the mental models on which businesses are run, this fits exactly into fostering the moral imagination to meet social concern, for which Dr. Werhane has long been a leading advocate.

In addition to Pat Werhane, two IBPE board members, Ron Nahser, who has just stepped down as provost of Presidio School of Management after four years of service, and Charles Brock, who has just stepped down as Vice President and Chief Ethics and Compliance Officer at Abbott Laboratories are both eager to explore the possibility of working with businesses and other organizations in the Chicagoland area in this next step of social responsibility for corporations as an opportunity to extend organizational strategy to better serve the broad needs of society.

We all see the opportunity for executives and students to implement the vision of sustainability in multiple contexts — as entrepreneurs, managers or consultants, inside big or small companies, nonprofits or government agencies.

The Institute has the opportunity to bring together DePaul resources to help organizations think about their strategies and responsibilities in this time of social and environmental change.

As the IBPE platform for the conversation, we propose three "Executive Education" programs around the subject of examining career and corporate decisions from the perspective of Values and Vision.

Organizational Strategy Inquiry

The first program would offer executives an opportunity to address an organizational challenge they face which they want to address from the perspective of their organizations' values, vision and mission. They can ask how their organization is or can "address poverty through profit." It would be a 2 day seminar with the working title of:

"Leadership Challenge Inquiry – Igniting Your Values and Vision to Drive Sustained Organization Performance and Serve the Community."

Personal Career Inquiry

In these rapidly changing times, many executives are questioning their career direction. As one example, it is well known that over half the executives who attend executive MBA programs around the country are contemplating career changes since they find their present one unsatisfying, often because it is not aligned with their personal values, purpose and goals. (What is often referred to as a "calling.") And business schools do little to address this underlying need directly.

DePaul's focus on service and community as a career choice frames this individual inquiry. The working title:

"Own Who You Are – Ignite your Values and Vision to Drive Your Career to Serve Others."

These two programs have a successful history over the past 25 years, and originated at DePaul's Kellstadt GSB and the DePaul Philosophy department. They require little design work and can be offered with the present staff and resources of the Institute.

Sustainable Enterprise Inquiry

"Sustainable Enterprise Leadership" would use Sustainability as the specific framework for organization and career values and vision inquiry. This broader inquiry could involve the rich DePaul resources of the College of Commerce, School of Public Service, the Environmental Studies Department, as well as the Hay Vincent de Paul Leadership Project.

A working title, based on the Special Topics Finance course being offered in Kellstadt this fall, is:

"Sustainable Value Creation: How to Lead Organizational Change for Long Term Success."

Envisioned is a 4-5 day program for managers charged with addressing some challenge their organization faces concerning the need for sustainable thinking and strategy for their organizations.

Possible topics to be considered:

The business case for long-term sustainable strategy for exceptional value creation. Sustainability principles and frameworks – mental models, moral imagination and systems thinking.

Compliance as opportunity

Marketing and Branding

Product design, production and supply chain

Metrics and auditing

Leadership, Management and Communication

Vincentian principles of ethics and leadership would be the foundation for every business discipline presented – how each activity can support sustainability, increase stakeholder value and serve the common good.

Coursework, with hands-on learning based on strategy issues within their own organizations, will give executive participants a very clear idea of how sustainability can enhance bottom-line value – the business case - and how and where to start to lead and implement change.

Enhance Educational Programs through Collaborations and Partnerships

Through DePaul's unparalleled connections in the Chicago area, faculty and students and partners have access to a broad range of problems, opportunities, and best practices.

These strong ties to business are essential to identifying and responding to the educational needs of business and industry, and to transferring these needs effectively into the curriculum. With DePaul's broad educational offerings and perspectives throughout the University into all parts of society, it is uniquely well positioned to serve as an integrator among many different stakeholders and partners all working separately, and often ineffectively, toward the common goal of service to the community through best management practices.

Working with leading corporations and organizations provides insight into the needs of employers and gives students opportunities for internships and working relationships leading to future employment

Faculty Interest

There is further the opportunity to join with many of the faculty of DePaul who also recognize this need and to bring together many of the programs departments and centers at DePaul.

In conversations with the College of Commerce dean as well as the chairs of the Finance and Economics departments, there is strong interest in further exploring the possibilities of sustainable management education. We understand that this conversation began several years ago, but was

not actively pursued because of the press of other priorities.

As a first step in reviving the interest, Dr. Ali Fatemi, chair of the Finance Department, is offering a Special Topics course this fall: "Sustainable Value Creation." Ron Nahser has agreed to co-teach the course with Dr. Fatemi. (See Appendix for Statement of Purpose.)

Tom Donley, chair of the Economics Department is contemplating a Sustainability Concentration in Economics. Both Finance and Economics, along with Accounting are central to making the business case for sustainability. And of course, the Management and Marketing disciplines are necessary to formulate and implement the strategy.

Student Interest

There has been expressed interest from the students as well as their involvement with Net Impact, the fast growing national student organization which focuses on social responsibility of business. And as noted above, this interest in Sustainability is sweeping colleges and universities, and business, architecture and engineering schools in particular.

While the student interest is central to this effort, we will take it as a given that the younger students today – and many who are in mid-career – are looking for ways to put their values to work in a career. The growing enrollment in programs around the country is visible evidence. And we believe that the experience at DePaul with service projects across the curriculum is specific evidence to DePaul. This not a short-term fad, but a long-term fundamental trend.

VI. Initial Phase of Testing

To determine the market need, we recommend conducting interviews with the Institute's Board of Directors as well as the Kellstadt Advisory Council concerning the topics for the program mentioned above which are most pressing to develop long-term sustainable strategies. The specific focus initially would be on "Addressing Poverty Through Profits."

Secondly, we recommend interviews with various College of Commerce faculty members and faculty in other centers within the university who are interested in this field.

The target is to launch the 3 pilot programs in Spring, 2009.

We recommend an initial six month investment of \$100,000 for research, design, and market test both the 2 day programs at a target price of \$2,700 each and the Sustainable Enterprise 4-5 day program with a target price of \$4,700-\$5,700. Each program would target 30 attendees.

VII. Conclusion

We believe there is an enormous and growing opportunity to focus DePaul's Mission of Service around the broad enduring topics of Vision and Values driving performance, and now the contemporary challenge of sustainability, which has often been called the 21st century word for "justice." And we believe that DePaul is uniquely positioned to bring all these competencies together to help every organization reach its ultimate goal of providing sustained exceptional value by meeting the needs of all members of the society.

The major challenge today is to address the needs of the poor and of our increasingly threatened environment as profit opportunities. By viewing our social and environmental problems through the lens of organizational opportunity, we will be overcoming the long-standing division between social concern and the profit motive.

DePaul University and the Institute for Business and Professional Ethics are uniquely qualified and positioned to lead this vital work in service to the community.

Appendix

- I. DePaul College of Commerce Vision Draft.
- II. DePaul Kellstadt Special Topics in Finance: Sustainable Value Creation
- III. Presidio School of Management Vision

I. DePaul College of Commerce Vision - Draft

DePaul intends to become one of the finest urban, Catholic universities of the United States. Resolute in its Vincentian mission to make an extraordinary education accessible, DePaul will focus its energies on creating nationally recognized, rigorous programs of study; preparing women and men to be at the forefront of their chosen fields as ethical and socially engaged leaders; and building the financial and operational foundations to make our cherished mission permanent and truly effective.

The Case for Presidio School of Management

(Integrating the Energies of an Historic Time)

The signs of the time suggest the world is now at a tipping point. We are leaving an age of "domination and exploitation" and entering a new, rapidly developing *age of sustainability*.

As climate change, energy issues, increased inequity between rich and poor, and the increasing scarcity of resources escalate, all organizations – profit and non-profit - are becoming aware they are responsible not only for a healthy financial return to investors but also a social return to the community and an environmental return to the planet. What is needed are institutions to develop and teach the practices of *sustainable management*.

Presidio School Management has been at the forefront of this movement. Enrollment in its M.B.A. program in Sustainable Management has grown 1000% in the past five years, from 22 students in 2003 to 220 students in 2008. Now the School is poised to make a substantial impact on how business education is conducted in the U.S. and abroad.

Having created and refined an M.B.A. curriculum which integrates the human, environmental, and financial dimensions of business in every course of its 2-year program, Presidio is pioneering a model for teaching and learning the methods and means by which business can make a major contribution to sustainability throughout the world.

The program, based on the premise that only disciplined reflection on experience leads to learning that lasts, engages students in discerning where their own skills and talents can be brought to bear on intractable problems. This is because we believe the world is best served -- and most likely to be saved -- by men and women following their callings to build a sustainable future for people and the planet.

We are pleased that in the five years since Presidio established the field of Sustainable Management, at least nine other sustainability-related MBA programs have been developed. And almost every school in the U.S. now offers at least one course in sustainability or corporate social responsibility. It will take a wide array of such institutions and programs to bring about change on the scale that is needed.

While the M.B.A. program is Presidio's centerpiece, there is a much broader array of Presidio educational offerings to come, including a 5-month Certificate in Sustainable Management for senior Executives starting this year, and Custom Executive Programs tailored to help individual companies and management teams become leaders in sustainable business practices.

The M.B.A., Certificate, and Custom programs will be supplemented by week-long Executive Seminars in Sustainable Management, Conferences, Forums, Sustainability Research, Consulting, New Businesses, and Sustainable Business Partnerships.

Such partnerships have already been launched through the School's innovative system of Project-Oriented Learning, in which students and faculty are already engaged in more than 50 company-specific sustainability projects related to every aspect of business from operations to marketing.

About Presidio » Vision and Philosophy

Presidio School of Management believes that traditional business skills won't take students far enough. Our courses are designed to cross disciplines, teach through experience both in and outside of the classroom, and provide a new framework for talking about both business and sustainability.

Our educational philosophy provides students not just with a skill set, but with a unique perspective on solving the world's most pressing problems — leading to action driven by their vision and values. We prepare students to implement their vision of sustainability in multiple contexts — as entrepreneurs, managers or consultants, inside big or small companies, nonprofits or government agencies. This philosophy is grounded in three tenets:

Learning from Interactive Experience and Reflection

The first tenet is that learning is an interactive experience that depends in large measure on the learner's active participation — intellectually, physically, intuitively and ethically. Presidio School of Management believes that goal-directed action, mutually agreed upon, is more motivating and more potent than random or scattered action. The same is true of self-directed action, as opposed to authority-directed action.

It follows, then, that a positive, transformative education cannot be "delivered" to the student. It is, instead, an experience of co-creation by student and mentors, a stream of encounters and interactions and feedback, some carefully designed, some true adventures.

Therefore, the School believes that pragmatic inquiry and learning — the process of disciplined reflection and action based on experience — is far more effective and lasting than learning from experience alone (inductive reasoning) or reflection in the abstract (deductive reasoning). It is this continuous, testing movement between experience and assumptions — called abductive reasoning — which leads to genuine understanding, education and authentic, effective action.

Systems Thinking and Practice

The second tenet — systems thinking and practice — involves looking at issues or problems as a whole and designing solutions and practices that take into account the interrelationships among human, organizational and ecological systems. The systems perspective has often been omitted from and even discouraged by the highly specialized, discipline-centered model of higher education we have known for the past 150 years. In the words of the 1999 State of the World Report, education has increasingly taught "disconnection."

While this model has given the Western world a high state of technological advancement, its narrow

focus has operated on the principle of separation. The result of this approach is that yesterday's solutions have become today's problems. But the earth tells us that it operates — in both the personal, social and natural spheres — on the principle of integration and wholeness. Each part of each system is related to every other part, and all systems are related, in turn, to one another.

So the need is not so much for specialists who can isolate issues as it is for "connectionalists" who can think creatively about the way that things, numbers and people relate to one another. Jerome Bruner of Harvard has defined creativity as "the capacity to make unexpected connections." The ability to recognize and articulate those connections in tangible, narrative language as commitments and promises in the world, leads to action. These are the principle capacities for which future leaders must be prepared.

Integration and Communication of Knowledge

The two tenets described above, in combination, lead to the third tenet, which is a management practice based on the integration and communication of knowledge. Since we learn from active participation and seeing interconnections, the Presidio curriculum culminates in the Integrative Capstone course. In this course students develop a Venture Plan that captures the narrative quality of their work. This plan draws on all their studies — including strategy, operations, marketing, finance, and sustainability — and engages the marketplace through the creation of a rigorous business plan to demonstrate their mastery of the MBA program's core competencies.

For Presidio students, creating and developing their Venture Plan also provides the opportunity to uncover, define, articulate and test their "calling" – the work they sense they are here to do – engaging others and leading toward their goals, and the School's goal, of furthering sustainability in the world.

Competitive Landscape/Opportunities (From Presidio's Analysis)

In the five years since Presidio launched its MBA program, there are now at least a dozen other similar sustainability-focused MBA programs that have launched around the world as well as executive-level programs in sustainability offered by Harvard, Stanford, Duke and Presidio.

The Aspen Institute, in its biannual report called Beyond Grey Pinstripes, spotlights MBA programs that are integrating issues of social and environmental stewardship into curricula and research. Among other findings, the report showed that the number of reported MBA courses that focus on sustainability jumped from 13 in 2001 to 154 in 2007.

The growing demand for sustainability-related education is indicated in the significant increase in MBA enrollment rates. In the past five years, Presidio has achieved a more than 1000% growth rate, increasing enrollment from 22 students in 2003 to 220 students in 2008. Presidio is now one of the largest sustainability-focused MBA programs, receiving national press attention from *The New York Times, Newsweek, Fast Company*, Reuters, Businessweek.com and Forbes.com as well as local media outlets such as ABC 7 News, KQED Radio, *San Francisco Chronicle* and *Sabbn Francisco*

Appendix III.

Finance 798

Special Topics: Sustainable Value Creation

Purpose of the course: This course is designed to introduce the concept of sustainability to the process of value creation. The role of financial management has traditionally been defined as one of value maximization. A complex set of question arises, however, as to whether such maximization is to be undertaken "unconstrained" and from the perspective of the shareholders alone. For example, should the interests of others, including those of the customers, employees, society at large, the government, the environment, be regarded as constraints to such an endeavor? Some of the recent contributions to the field suggest that most assumptions of the traditionalists (those arguing that the only purpose of the firm is to serve the shareholders and to maximize their wealth) do not hold in "the real world." Therefore, they conclude that it is necessary that all relevant interests be recognized and taken into account. However, the unanswered question is: "how does one do this?" This course is designed to pave the way toward the answers to this question. Our goal, therefore, is to develop the theoretical relationship that exists between finance and sustainability, and to explore the practical issues associated with its implementation. In plain language, we will learn how to make a business case for making investments in sustainable and socially responsible projects. More ambitiously, our objective will be to develop a framework for the evaluation of all long-term benefits and costs associated with a project.

APPENDIX 4 MSSM Capstone Course Chapter for UN PRME Book

A chapter for the recently published book from the UN Principles for Responsible Management Education (PRME) Secretariat.

Educating for Responsible Management – Putting Theory into Practice

Catalog Description: This collaborative book profiles cutting-edge approaches to learning and teaching for the Principles of Responsible Management Education (PRME) that go beyond current discussions of sustainability and corporate social responsibility *content*, to include a wider lens that highlights the *processes of educating* the next generation of responsible managers within and beyond the boundaries of higher education.

"Integrating PRME in Practice through Pragmatic Inquiry: a Sustainable Management Case Study"

Scott Kelley, Assistant Professor of Religious Studies DePaul University

Ron Nahser, Director of Urban Sustainable Management Programs DePaul University

We are all familiar with the 6 UN PRME Principles – Purpose, Values, Method,

Research, Partnership and Dialogue - http://www.unprme.org/
– and their impact on business education at the institutional level. But how do students experience their impact in practice? This chapter will argue, using the case method, that the educational experience in the capstone course for the MBA concentration in Sustainable Management at DePaul University titled *Developing Sustainable Strategies: Capstone Practicum* highlights the challenges and opportunities of integrating the PRME Principles into management education from the student perspective. It explains how one student engaged in an arc of Pragmatic Inquiry® (an example of Principle 3: Method) to develop his sustainable strategy (an example of Principle 1: Purpose), but Pragmatic Inquiry touches on each of the PRME principles. In this case we introduce Steve Lu and Garfield Produce, the sustainable value he

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry

created, and then we explain how Steve's educational experience using Pragmatic Inquiry helped

him create sustainable value, using illustrations from his coursework to show his arc of inquiry

from idea to reality. The case includes a number of specific Pragmatic Inquiry exercises to

facilitate the creation of sustainable value, and concludes with a summary of how classroom

endeavours, at any level of higher education, can benefit from it.

An introduction to Steve Lu, Garfield Produce, and Pragmatic Inquiry

When Steve Lu decided to leave his job at Weber Grill in the Fall of 2012 to develop the

idea of an urban, indoor hydroponic farm, he took a significant risk. There was no guarantee that

his venture would succeed, and he had enough life experience and wisdom to know that many

entrepreneurial ventures fail. On top of the usual business challenges facing his venture, Steve

also faced an additional set: he wanted to generate sustainable value by breaking into a new

market, by developing a production facility in an abandoned part of Chicago, and by providing a

handful of new jobs to people in the area looking for stable work. If his management education

did not prepare him to succeed in this venture, then its value to live up to the Principles of

Responsible Management Education (PRME) would be dubious. It is one thing to prepare for

advancement in a well-established company like Weber Grill, it is another to generate the kind of

sustainable value that disrupts decades of neglect and serves new labour markets in a troubled

area of a large metropolis like Chicago. In what ways did his educational experience inform his

entrepreneurial experience? Did it prepare him to create sustainable value in an underdeveloped

urban environment?

The Result: Garfield Produce Company

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Garfield Produce Company is an urban hydroponic farm located in Chicago's west side that seeks to empower the community through wealth creation. Since it opened it has received significant recognition and was featured on GoodWorkChicago, an initiative that brings together non-profit leaders, social entrepreneurs, government officials, philanthropists and civically-minded business people to share best practices and exchange ideas. Garfield Produce was also asked to cater for On The Table, hosted by Breakthrough Urban Ministries, a non-profit that focuses on social services, housing, and education in the Garfield Park neighbourhood of Chicago that has high rates of unemployment, homelessness, and a host of other social challenges.

Garfield Produce Company did not pop up overnight; it was not a rushed business plan that caught the eye of an angel investor or venture capitalist. Rather, it was an idea that developed gradually and methodically over two years through an arc of inquiry that moved from a general idea through critical analysis to reflective interpretation to a robust business plan, all of which eventually culminated in the business itself. As he developed the concept of Garfield Produce Company, Steve's educational experience became much more than the acquisition of a set of skills or an accumulation of business theory or technical terms. It was, at its most basic, a process of formation and discovery – the cultivation of a dynamic, innovative, learning mind-set equipped to generate sustainable value.

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Steve being recognized at GoodWorkChicago



Produce sold at the 61st Street Farmers Market https://www.facebook.com/GarfieldProduce/photos/pb.651863228215632.-2207520000.1434391809./758742890860998/?type=3&theater

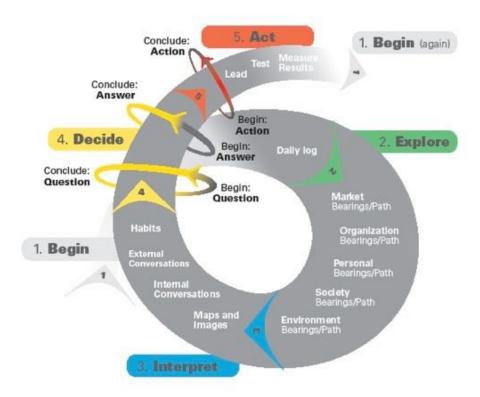
The Process: Pragmatic Inquiry

In many ways, Steve's experience in the classroom has been a kind of litmus test for PRME. The Purpose of PRME described in Principle 1 is to help students become "generators of sustainable value," to create "an inclusive and sustainable global economy." Steve's educational experience illustrates how the method of Pragmatic Inquiry enables students to be generators of sustainable value moving through five distinct phases and their corresponding mind-sets: Begin

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry attentively, Explore openly, Interpret imaginatively, Decide responsibly, Act courageously. ² In each phase students are challenged to observe the movement of their own thought over time and to adopt a certain stance toward the insights they discover in each phase. In the Begin phase, students are encouraged to be attentive to the concern, doubt, challenge, or opportunity that initiates the inquiry. In the Explore phase, students are encouraged to be open to new data and new facts, especially when they challenge or contradict assumptions. In the Interpret phase, students are encouraged to imagine new possibilities and drivers of value. In the Decide phase, students are encouraged to identify responsible courses of action. In the Act phase, students are encouraged to communicate and take action with the kind of courage that comes from clarity and

conviction.

Pragmatic Inquiry Process





A visual representation of the phases and activities of Pragmatic Inquiry. In this diagram the phases of Pragmatic Inquiry listed on the outside of the spiral do not include the corresponding mindsets, but they are included in the full description of Pragmatic Inquiry available at pragmaticinquiry.org. Note the cyclical and dynamic nature of the diagram. Created by Corporantes Inc. and used with permission.

While beginning with corporate engagements over 30 years ago, Pragmatic Inquiry was early on deployed in a variety of educational contexts, engaging business executives and students in programmes such as undergraduate, graduate and executive education at DePaul University, the Presidio School of Management, Stanford Graduate School of Business, Kellogg EMBA, Beta Gamma Sigma business honours society, executive education at the Notre Dame Mendoza College of Business, and most recently at the 6th PRME Global Forum in New York. ³

Educating for responsible management is a big promise. While the principles of responsible management education are both noble and needed, it is a very big challenge to develop the capabilities of students to be future generators of sustainable value for business and society at large, especially when contrasted to the dominant belief that "the social responsibility of business is to increase its profits," as Milton Friedman (1970) and his many followers have professed for over four decades. Management education cannot develop the capacity of students like Steve Lu to become the generators of sustainable value that the UN envisions if it narrowly frames the role of business in society in the way that Milton Friedman did. Management education as a whole must unlearn some of its most deeply held assumptions about business, about society, and about knowledge itself. Pragmatic Inquiry helps students become generators of sustainable value because it operates from five basic principles concerning the nature of knowledge, value, and responsibility that challenge many of the assumptions of traditional management education:

- all learning begins from doubt
- insights emerge within an arc of inquiry
- social responsibility emerges from systems thinking
- generating value requires that students become sources of value
- sustainable strategies must be driven by personal and organizational values

We will analyse each of these foundational claims in relation to Steve's arc of inquiry, following the five phases of Pragmatic Inquiry: Begin, Explore, Interpret, Decide, and Act.

All learning begins from doubt

Fostering the capacity for on-going critical inquiry is a very different approach to learning than the transmission of an "already out there" set of insights aggregated over many years by a community of experts in a particular discipline. In *Managers Not MBAs: A Hard Look*

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry at the Soft Practice of Managing and Management Development, Henry Mintzberg (2004) criticizes the way that management developed into "coalition of functional interests" (31) that ceased to have an organizing or integrating framework. The evolution of specialized subdisciplines had the net effect of conflating management to decision-making, decision-making to analysis, and analysis to technique (36-39). As a result, inquiry and discovery have not been a significant part of the overall management educational experience. Even innovations in management pedagogy, like case studies and game simulations, often reflect the on-going specialization that can take faculty and students further away from the very foundations of learning that are necessary to generate sustainable value. Responsible management education is more than the mastery of settled management wisdom.

When Steve Lu began a course titled *Developing Sustainable Strategies* for the Sustainable Management Concentration offered through the Kellstadt Graduate School of Business at DePaul University in the Spring Quarter of 2012, he began an approach to learning called Pragmatic Inquiry that is a foundation, method, and pedagogy for developing sustainable strategies (Kelley & Nahser, 2014). In the Begin phase of Pragmatic Inquiry, Steve identified a baseline challenge question, or "Cq" in the shorthand of Pragmatic Inquiry, and created a digital ePortfolio that would capture his own arc of inquiry as it unfolded. The premise of Pragmatic Inquiry is a simple one: putting into practice the philosophy on which it is based, learners at all levels discover the experience of inquiry and values-driven decisions when they seek to solve a problem.⁴

The baseline **Cq** exercise at the start of the Begin phase is a set of five basic questions that identify a baseline for the overarching question, answer, and action:

Baseline Questions

1. As you move forward, what market need, problem, issue or opportunity do you see which your or your organization might address? Why is it important to you and the organization?

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry 2. What challenge or question (symbolized as **Cq**), do you face in meeting this need?

Who else is your Challenge/question important to, and why? (**Cq** can also be described as a barrier, concern, problem, or issue)

Baseline Answer

- 3. What is your preliminary answer now?
- 4. What are the values (organizational and personal) impacting your answer?

Baseline Action

5. What actions are you planning to take or are taking now?

Starting the course with the baseline **Cq** exercise serves a variety of purposes. It immediately engages the students with questions important to *them* and to the *their* career aspirations. It positions learning in the context of problem solving. It establishes a starting point that will be revisited numerous times. Most significantly, the baseline **Cq** exercise of Pragmatic Inquiry changes the student-instructor relationship by putting students in the driver's seat of their own learning. In this way, it differs from a traditional case study approach because the case is the student's own, not a hypothetical situation often outside the realm of a student's experience. The role of the instructor, then, is also changed at the very beginning to a kind of gadfly or midwife,

as Socrates used to call himself. Students are not often prepared for this kind of personal investment in their own learning process, and can respond to the baseline **Cq** hastily without much thought. They soon discover, however, that if *they* do not truly care about their own **Cq** then the instructor certainly will not and the inquiry falls apart. It may take students some time to awaken the desire to know that underlies all inquiry, and so the instructor can push students by constantly asking, "who cares about this" or "what difference does this make" or "why do you care about this"? Students quickly discover that it is a waste of everybody's time to work on a **Cq** they are not committed to. This does not mean the **Cq** cannot change; in fact, students often

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Looking back at Steve Lu's baseline **Cq** from 2012, two full years before the launch of Garfield Produce Company, it is easy to see the seeds of a profound idea⁵:

do change their Cq as they feel the pull and tension of the challenge inquiry and their attention is

As more people are moving back to cities, the cost of transporting food to cities is also increasing. There is, and always will, be a need to feed people delicious and nutritious food at an affordable price. The farming industry needs to evolve in order to meet the rising demand of healthy food in a sustainable way. Resources should be used to add value to the crop growing and distribution chain, and not wasted on transportation and wasteful practices.

He continued to refine the **Cq** in his response to the second question:

drawn deeper and wider.

For the industry, the biggest challenge is in educating consumers on the food distribution value stream. Consumers need to be more aware of how their food is grown, and where it's coming from. Change has to start from the consumers. Only then will the market respond to changing consumer demand. This problem impacts everyone, but has an especially large impact on impoverished areas, or food deserts. It is also our responsibility to teach future generations on the value of creating sustainable food sources.

In these basic responses, Steve had identified a social challenge and a basic value proposition from the start: to create an urban farm (with strawberries as the primary crop) that would (1)

demonstrate the feasibility of urban farming to consumers, and (2) provide a complete business plan for a commercially viable urban farm. Steve was also aware of the values that were driving his question and hypothesis:

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- Emphasis on educating consumers.
- Must build and cultivate community.
- Business model must be profitable, and subject to the laws of supply and demand.
- Use of industrial engineering background, and experience with Lean Manufacturing,
 the operational model must be systemically efficient.

At the outset of his project, Steve had already identified a way to test his assumptions: "in order to supplement my lack of agriculture knowledge, I've invested \$600 in an ebb & flow hydroponics setup to be done right in my living room." Consistent with his engineering background, Steve wanted to better understand the inputs necessary to grow produce hydroponically, so he built a hydroponic lab in his apartment with materials he bought from a local hardware store.

Steve also took full advantage of the learning opportunities a university has to offer.

After deciding to leave his job at Weber Grill and to develop the concept of Garfield Produce full time, he took a series of part time jobs over the course of two years that contributed significantly to his discovery process. Learning is a process that integrates experiences from many dimensions of life, not just what happens in the classroom. Steve managed a rooftop greenhouse to learn more about the cost of energy inputs required to grow produce hydroponically. He managed an urban garden on campus to learn more about agricultural processes and techniques. Through these additional learning opportunities, Steve quickly developed the knowledge and relationships to launch Garfield Produce Company. The structured arc of inquiry that he experienced through

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Pragmatic Inquiry integrated insights from his own experience and oriented his learning toward action.

Insights emerge within an arc of inquiry

At its very core the PRME aspiration for students to be generators of sustainable value is about learning, discovery, innovation, and disruption. As "Dealing with Disruption: Clearing Pathways for Entrepreneurial Innovation," a 2014 report from the World Economic Forum argued, disruptive, transformative innovation is by definition uncharted. Established businesses rarely act as radical disruptors or innovators in their core business, according to the World Economic Forum report, because they often predict the future by extrapolating from the past more than inventing the future they want, one that is non-linear and full of new possibility. Disruptive entrepreneurs who are able to generate sustainable value for business and society will necessarily be masters of discovery, masters of innovation. PRME educators, therefore, must help students to become experts at discovery and innovation; they must re-discover in their own experience the arc of inquiry that includes questioning, answering, defining, and testing. Educating for responsible management is less about the transmission of existing knowledge, the mastery of big data, or the development of a set of functional skills. It is about discovery. Unfortunately, management education has not given adequate attention to the centuries of philosophical debates over learning, inquiry, cognition, or epistemology. As the Jesuit Philosopher Bernard Lonergan observed, "in all one's questions, in all one's efforts to know, one is presupposing some ideal of knowledge, more or less unconsciously perhaps" (as quoted in Morelli & Morelli, 1997, 351). When assumptions of knowledge are not made explicit, they often go unchallenged and are absorbed uncritically into one's pattern of thought. As Charles

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry Sanders Pierce argues, "in order to learn you must desire to learn, and in so desiring not be satisfied with what you already incline to think" (Pierce, 1932, 56). Pragmatic Inquiry operates as an integrated arc, moving from initial doubt through analysis to interpretation and finally through decision to action. Prior insights yield entirely new questions and new assumptions that will also be tested and will subsequently lead to new courses of action.

A Dramatic Example: Archimedes' Eureka Experience

The desire to know that initiates the discovery process can easily be dismissed, overlooked, or underdeveloped in any educational endeavour if the teachers assume that learning is merely the transmission of knowledge from an experienced expert to a novice. Answers often eclipse the very questions they address. One of the most important experiences a student can have, at any level, is to experience what it is like to be gripped by "intellectual desire, an eros of the mind" that is not satisfied with half-truths, ideologies, or mistaken concepts (Lonergan, 1992, 372). When students experience the tension of a question, of wanting to find some insight they do not yet have, they begin a process that re-connects the open seeking of inquiry with the temporary satisfaction of answer, which is in turn expressed through action.

The story of Archimedes provides a dramatic illustration of the experience of insight. Having sought a way to differentiate real gold from fool's gold, Archimedes rushed naked from the baths of Syracuse shouting 'Eureka' or 'I have discovered' after he realized that measuring the different volumes of displaced water would be a viable way to accomplish his goal. His dramatic experience provides a number of clues about the nature of insight, as one moment in a longer experience. As Lonergan (1992, 27) describes:

• it comes as a release to the tension of inquiry that often lasts for a period of time,

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- it comes suddenly and unexpectedly,
- it is a function of inner conditions, not outer circumstances,
- it pivots between the concrete and the abstract,
- and it passes into the habitual texture of mind.

Like Archimedes, students must be prepared to recognize the arc of their own thinking that leads to insight. When students notice, in their own experience, that the tension of inquiry precedes insight, they become aware of the dynamic relationship between relevant questions, answers that address them, and the on-going pull from what is yet to be discovered. In an era of big data especially, it is easy to privilege fact over inquiry, data over learning. Archimedes' experience was not a mastery of what had already been discovered - it was the profound experience of connecting the dots, of finding a pattern, of solving a problem. It is not easy to turn the fundamental orientation of a management classroom from the accumulation of data to an arc of inquiry. The focus on inquiry does not excuse students from mastering *content* in any given field, but it does mean students must locate their *own arc of inquiry* in the larger trends of a given field, in a given body of content.

Disruptive Pedagogy

Pragmatic Inquiry can be viewed as a disruptive pedagogical innovation considering the significant critiques of management education over the last decade. In "Bad Management Theories are Destroying Good Management Practices," Sumantra Ghoshal (2005) argues that business schools have adopted and propagated amoral theories severed from the realm of human intentionality, and therefore, from any moral or ethical consideration. Business schools have increasingly adopted an approach that seeks to discover patterns and laws that function as causal determinants of corporate performance (77). Ghoshal refers to the economist Friedrich Hayek's

critique in the "Pretense of Knowledge" (1975) to describe this mind-set. Hayek was highly critical of what he calls the "scientistic" attitude that has contributed to the propensity in economics to imitate the physical sciences. The scientistic attitude mechanically and uncritically applies habits of thought from the physical sciences to fields different from those in which they have been formed, a problem Bennis and O'Toole call "physics envy" (2005, 98). Hayek has a more humble view about the acquisition of knowledge:

if man is not to do more harm than good in his efforts to improve the social order, he will have to learn ... he cannot acquire full knowledge which would make mastery of events possible. ... [h]e will therefore have to use what knowledge he can achieve ... to cultivate a growth by providing the appropriate environment, in the manner in which the gardener does this for his plants (1975, 442).

Gardening is a fitting metaphor to describe the way insights emerge in the Pragmatic Inquiry process. By being attentive to the dynamic, and often subtle signs and indicators of the larger ecosystem, the gardener constantly adapts, adjusts, and responds to the needs of the seedling at any given point in time, creating the conditions that encourage growth. In Steve's particular case, there were numerous insights that emerged because he was attentive, open, imaginative, responsible, and courageous.

Social responsibility emerges from systems thinking

When Steve was interviewed for *Distinctions*, an internal DePaul publication, he explained that the sustainable management program "puts two skill sets together--business and sciences--so that students are prepared to tackle real-world issues." He continued to explain that "Sustainability is a 'big picture' problem: It's not about changing light bulbs or driving electric

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry cars; it's about our whole economic and social system. That's why the program is so good and so important: It takes students beyond a conventional, narrow framework" (*Distinctions*, 2015).

Helping students get beyond a "conventional, narrow framework" that focuses exclusively on profits, as Steve alludes to, is precisely what PRME expects of the management classroom. The PRME aspirations require students to think in systems because a conventional, narrow framework focusing exclusively on profitability is not equipped to see the ways in which business ventures are embedded in larger socio-cultural and environmental systems. Through the Explore phase, Steve began to see that his **Cq** was embedded in an overlapping network of social, cultural, economic, and ecological systems. Such an expansive vision requires an exploratory mind-set that seeks patterns of connection, which is increasingly difficult in an educational environment that Henry Mintzberg describes as a "coalition of functional interests" (2004, 31). In the Explore phase of Pragmatic Inquiry, students examine their **Cq** from multiple stakeholder perspectives, which significantly broadens Milton Friedman's notion of responsibility, and becomes a necessary perspective for the development of sustainable strategy.

Systems Thinking: Analysis and Synthesis

The capacity to engage in systems thinking, which includes the mind-sets of analysis and synthesis, is a critical dimension of Pragmatic Inquiry and an important foundation for PRME. Pragmatic Inquiry aims to help students identify leverage points, the points where actions and changes in structures can lead to significant, enduring improvements (Senge, 1994, 114). When students are able to see the ways in which their **Cq** is embedded in a network of overlapping

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry systems, the better equipped they are to discover a specific leverage point for systems intervention.

In the Explore phase of Pragmatic Inquiry, students are asked to examine their **Cq** in the context of a network of overlapping systems:

- *Market* as a distinct system of needs being met (efficiently or inefficiently) by a number of organizations and sectors that operate competitively or cooperatively
- Organization as a singular, discrete system that aims to serve market needs in ways that assemble and utilize natural, financial, and social capital
- Personal as a set of ethical, intellectual, and emotional systems comprised of assumptions, values, inherited viewpoints, needs, and desires that shape one's worldview
- Society as a distinct network of complex social systems including the political,
 legal, religious, economic, and cultural, where each system operates on different
 levels of scale including the micro, local, regional, domestic, international, and
 global
- *Environment* as a finite set of ecosystems that create the conditions for all human activity, including energy, water, soil, and climate that also operate on different levels of scale including the micro, mezzo, and macro

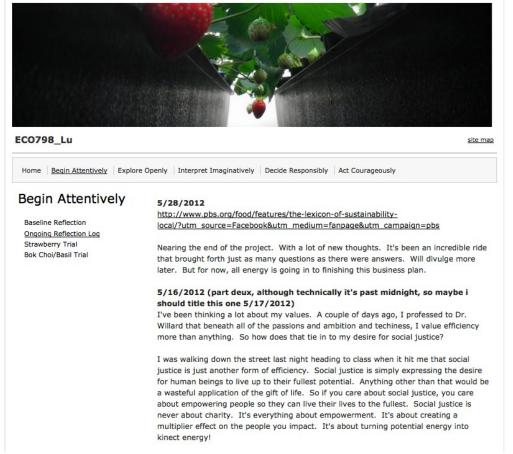
Integrating Practice, Theory, and Meaning through Pragmatic Inquiry **Strategic Stakeholder Network**

	Environment How we impact nature.		
	Society How we exist as a society.		
H	Market low we differentiate, compete, cooperate in the marketplace.		Á
	Needs>		
01			I
	allenge/questions		
Personal Personal values drive all action.	>ldeas>	Organization How we work together.	
	Pragmatic Inquiry		
Revealed Needs			
Identified Challenge	/questions Cq		
Actionable Ideas	8 8		

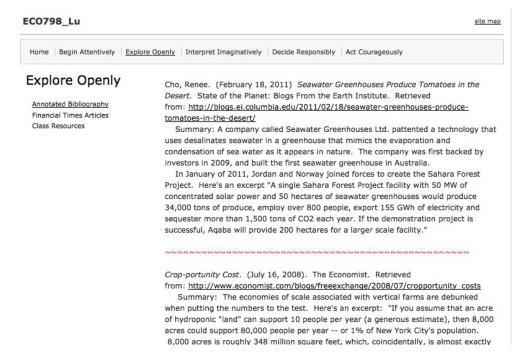
A visual representation of how multiple systems overlap from Figure 9.5: Strategic Relationships in Nahser, 2009, 189. Copyright 2009. Image used with Permission. Students examine their **Cq** from each of these stakeholder perspectives to identify and understand the various systems impacting their **Cq**.

In order to facilitate such a comprehensive stakeholder systems analysis and for students to become more aware of their own habits of mind, *Developing Sustainable Strategies* requires students to address particular questions about each of the stakeholder perspectives in an on-going reflection log. Students are also required to develop an annotated bibliography of resources that sufficiently capture the various systems perspectives being considered, and the sources that will constitute their evidence. In the Explore phase students are encouraged to engage in divergent thinking, where data from their own research and reflections inspires new sets of questions, challenges assumptions, and introduces entirely new perspectives, especially ones that contradict their own assumptions. Students can often be overwhelmed by complexity in this phase, which is perfectly appropriate. In later phases, students converge to a single point of action.

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A view of Steve's Pragmatic Inquiry digital ePortfolio. The tabs across the top correspond to the five phases of Pragmatic Inquiry. The left hand navigation shows a link to his baseline reflection \mathbf{Cq} , a link to his ongoing reflection log, and links to the Strawberry and Bok Choi/ Basil Trials. This image shows Steve's on-going reflection log, and a brief reflection on his own values related to his \mathbf{Cq} . Steve's complete ePortfolio is available at https://depaul.digication.com/eco798_lu/About_me/published



Under the Explore tab, there is a section for an Annotated Bibliography, which is one of the course assignments. This is where Steve gathered resources related to his **Cq** and annotated them, ensuring he found a connection between his own research and his **Cq**. This provided some of the base of evidence for his business plan.

Understanding the Analytical Mind-set

The analytical mind-set is what discovers facts. From the original Greek *ana* meaning "up" and *lyein* meaning "loosen," analysis loosens complex phenomenon by breaking them into component parts. It is a foundational intellectual skill of the business mind. Good analysis provides a tool for common language, shared understanding, and measurement for performance (Gosling & Mintzberg, 2003). From market segmentation to pricing strategies, business students must develop the analytical skills necessary to carefully make distinctions between elements of a larger whole. While analysis is a necessary mind-set for clue gathering, it is not sufficient to yield understanding of complex systems or the explanatory narrative that binds clues together.

Analysis alone can, in fact, lead to significant distortions if not balanced with the mind-set of synthesis, as Donella Meadows argues in *Systems Thinking: a Primer* (2011). Since the industrial revolution, she argues, "Western society has benefited from science, logic, and reductionism over intuition and holism" (locations 111-112). On one hand, she continues, we are taught to

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry analyse using rational ability - tracing paths from cause to effect, looking at things in small pieces, solving problems by controlling the world around us. On the other hand, however, we all deal with complex systems, including our own bodies, long before we were educated in rational analysis (locations 101-105). Insight, then, necessarily involves both mind-sets, the analytical to gather data and the synthetic to put things into a larger context:

You can see some things through the lens of the human eye, other things through the lens of a microscope, others through the lens of a telescope, and still others through the lens of systems theory. Everything seen through each kind of lens is actually there (locations 146-149).

Understanding the Systems Mind-set

While analysis is necessary for understanding component parts of a system, it is not sufficient for understanding the behaviour of the system as a whole (location 159). Bernard Lonergan's detective analogy is helpful for seeing the relationship between analysis and synthesis:

In the ideal detective story the reader is given all the clues yet fails to spot the criminal. He may advert to each clue as it arises. He needs no further clues to solve the mystery. Yet he can remain in the dark for the simple reason that reaching the solution is not the mere apprehension of any clue, not the mere memory of all, but quite distinct activity of organizing intelligence that places the full set of clues in a unique explanatory perspective (1992, 3).

To continue with the detective metaphor of learning and discovery, the detective is a person who is able to connect the dots, to piece together a coherent explanation from a set of given facts. A fact or data point only becomes a *clue* when its relationship to a larger story emerges. The detective does not merely accumulate new facts or new data through analysis, she also discerns

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possible connections and patterns until she arrives at a coherent, explanatory narrative. Arrival at an explanatory narrative is experienced as a release to the tension of inquiry, where one may shout "Eureka!" as Archimedes did. Insight, then, is "not any act of attention or advertence or memory but the supervening act of understanding" (Lonergan, 1992, 3).

Clues disclose a larger explanatory narrative about an event in the way that facts can disclose a larger system as "an interconnected set of elements that is coherently organized in a way that achieves something." (Meadows, 2011, locations 162-164). Systems thinking, then, provides a way to piece together diffuse clues, disjointed bits of data, and an array of facts into a coherent, explanatory narrative. While such a narrative may be tentative and evolving, it is essential for discovering broader patterns of relationship, and potential responses.

Some Clues Steve Pieced Together

On April 16th, Steve discovered a clue while listening to a story on National Public Radio that examined the spread of Salmonella in some Dole brand salads. He began to think about food safety as another potential point of differentiation for his crop:

When food is brought to these huge processing centers, the entire stock of food is then exposed to any infections, like salmonella. So the origins of the poisoning may have started in 1 farm, or maybe even introduced to the processing center from another source outside the farm. But by the time the infection is caught, thousands of pounds of food may have been infected. ... if food is purchased locally ... the source can be more easily traced. The counter argument for that maybe that it's easier to regulate food safety if it were done aggregately. ... I need to think about that one.

The natural unfolding of Steve's desire to know had discovered that the larger story of food safety could be a significant reason for consumers to consider local, hydroponically grown produce:

Last year, the Center for Science in the Public Interest compiled a list of the 10 foods that had been recalled most often by the FDA since 1990. Of all the foods in the country, leafy greens topped the list, with 363 reported outbreaks resulting in more than 13,000 illnesses. ... "It comes down to concentration and centralization of the food supply," said Marion Nestle, author of Food Politics and a food studies professor at New York University. "If something goes wrong at a place that produces hundreds of thousands of eggs, they all have to be recalled. If it's just a local farmer, it's just a few dozen."

In the Explore phase of Pragmatic Inquiry, Steve was able to analyse and synthesize different data points to see how urban hydroponics could be a disruptive innovation in a food system that is highly centralized, highly commoditized, and vulnerable. Steve was also able to challenge some of his own assumptions:

When I was talking to farmers at the Good Food Fest, I noticed that some of the farmers really loved their crop, almost as if they were their children. I can understand that now. I found myself showing pictures of my strawberries to co-workers and friends this past weekend as if they were my own kids.

But two days later, he discovered a challenging clue:

... during class on Monday ... [The professor] had mentioned to be careful not to fall in love with the product, but fall in love with the market. ... so many of the farmers there were really in love with their crops. And I really admire that. ... So maybe to amend [the Professor's] comment, maybe it's my job as the visionary to *fall in love with market*, so that I can help create opportunities for others to fall in love with the product. ... I must remember this. Otherwise I will become too disconnected from the people that I'm trying to serve.

Learning how to fall in love with the customer, not the product, was a subtle insight that inspired Steve to pivot from growing Strawberries to focus more on leafy greens, like Bok Choi and Basil. Seeing that his venture was embedded in a larger market system allowed Steve to find other market opportunities, because the primary insight was not about Strawberries, but about urban hydroponics.

Learning to become a source of value

Systems thinking is a foundational requirement for pursuing the lofty aspirations of PRME, but it is not sufficient for generating sustainable value. Managers must also understand meaning: "[t]hese days, what managers desperately need is to stop and think, to step back and reflect thoughtfully on their experiences" because "[u]nless the meaning is understood, managing

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is mindless." (Gosling and Mintzberg, 2003, 57). The reflective mind-set demands that attention

be turned *inward* so that the turn *outward* is likely to see something familiar through a new lens.

The Reflective Mind-set in Practice

Steve's on-going reflection log reveals the importance of a reflective mind-set. He wondered if produce really was a commodity or if there could be meaningful product differentiation:

How can one have a competitive advantage when it comes to commodities? Commodities are defined as not having any qualitative differentiation across the market, no matter who produces it. ... are crop really commodities? I believe the answer is no. ... Even for low quality differentiated crops like wheat or rice, the real/perceived qualitative difference can be linked to ethical factors, such as the following:

- 1. Method of production (hydroponics? traditional? permaculture?)
- 2. Place or origin (local produce? or imported from 2000 miles away)
- 3. Distribution method (farmer's market produce vs. mass retail)

Steve questioned whether the explanatory framework of "commodity" accurately described how he or others view produce because he found at least three elements that could be meaningfully differentiated. Had he continued to believe that produce necessarily functions as a commodity, he may not have had the insight that his crop could be meaningfully differentiated by the method of production, the place of production, and the distribution method.

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry Steve found another very important clue when researching urban farming in Detroit.

After reading an article in the *Detroit Free Press* titled "Michigan State Proposes 100-acre, \$100 million urban-farming Research Center in Detroit," Steve discovered that Michigan State University wanted to create a research centre that would make Detroit the centre of a network of cities interested in urban faming. While the goal was lofty, the article identifies concern that there is not enough representation from the neighbourhoods themselves: "If the people aren't ready to go, the good ideas get scrapped." The article triggered a reflective, self-critical mindset:

I'm reminded to be proactive in engaging the community. This is one of my weakest points right now. And if I were to really invest in this project, I also need to consider partnering with someone with a strong connection with the community.

Although the article added another data point that reaffirmed Steve's general commitment to urban farming, it also provided an insight into the importance of community support. Through reflection, Steve realized that he did not yet have community support.

By exploring other companies working in the same space, Steve found another important clue about his own system of value. GreenUrbanPonics is a for-profit social enterprise that seeks to provide a year-round supply of fresh, wholesome, locally grown produce to urban communities. Steve discovered that "they are a for-profit organization that works closely with the North Lawndale Employment Network to provide not only produce, but jobs for the local community. YES." He discovered that GreenUrbanPonics valued community support so much that they had a dedicated person to manage community development relations.

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry

Sustainable strategies must be driven by personal and organizational values

Pragmatism holds that we know our values by looking at the evidence of experience. Values are what ultimately drive us, as we see in Steven's experience. As Ghoshal's critique points out, there really are no such things as amoral theories.

Vision, Intuition, and the Pre-Scientific Act

In "Science and Ideology," the economist Joseph Schumpeter argued the act of analysis is impossible without a "prescientific act" where sensory data is recognized as having some meaning or relevance that justifies further inquiry (1949). Schumpeter used the terms "vision" and "intuition" to refer to the mixture of perceptions and prescientific analysis that are not entirely our own. Vision and intuition are shaped by the work of predecessors, contemporaries, or by ideas that float around in the public mind. For this reason, critical self-reflection is imperative and can not be dismissed as soft skills. Rather, it is foundational if one heeds the arguments of management scholars like Mintzberg and Ghoshal or economists like Hayek and Schumpeter.

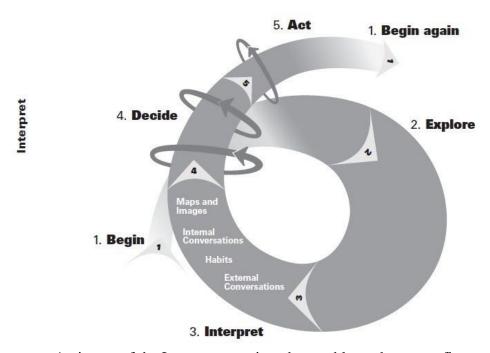
For Lonergan, who himself was a philosopher and an economist, self-awareness describes the evolving understanding that one's conceptual categories, one's interpretive filters, are not absolute and immutable but are shaped, coloured, and nuanced by the emotional life, culture, and social location. The responsible manager is a person who skilfully navigates a complex realm of emotion, commitment, aversion, fear, passions, culture, and meaning.

The Scissor Movement of Insight

The relationship between data, analysis, and intuition is like a pair of scissors where the

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry upward movement of the lower blade (the accumulation of data) meets the downward movement

of the upper blade (mental categories) (Lonergan, 1990, 293). These two different dimensions of insight are captured in the Explore and Interpret phases, where data is collected through stakeholder analysis and where accumulated data is interpreted relative to one's values, worldview, conceptual framework. Insight involves the 'cutting' intersection between the two blades, one accumulating data, the other interpreting it. As a narrow focus on the lower blade of the scissors alone, the scientistic attitude fails to grasp that the categories framing, directing, and explaining the data are themselves historically conditioned, emergent, open to revision, and animated by values. The framing categories are expressive of human values and merit attention on their own terms. Values select which questions are asked, which facts are judged to be relevant, and which categories are most useful for analysis. Values, therefore, must be viewed as a *driver* of strategy and not just an afterthought. In the Interpret phase exercises students discover within themselves a source of originating value, the values that are driving their inquiry.



An image of the Interpret exercises that enable students to reflect on personal and organizational value systems. Created by Corporantes Inc., used with permission.

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry In one journal entry, Steve discovered a very important clue about his values:

I'm at a very interesting intersection of my life, where my values, ambition, and creativity are all juxtaposing on each other. ... at 28 years old I think I have enough under my belt to know not to squander an opportunity like this. I know now more than ever that I'm heading down the right path.

Not long after, Steve discovered even more:

I've been thinking a lot about my values. ... beneath all of the passions and ambition and techiness, I value efficiency more than anything. ... social justice is just another form of efficiency. Social justice is simply expressing the desire for human beings to live up to their fullest potential. ... As a social entrepreneur, it's my responsibility to create platforms for people to find opportunities to live their lives to the fullest potential.

Having identified and clarified his own values, Steve not only found a source of meaning to sustain his on-going inquiry, he also found a source of courage to act.

Pragmatic Inquiry differs from a traditional case study because of its explicit focus on the reflective mind-set throughout the five phases, but especially in the Interpret phase. In the traditional case study, students are asked to analyse a given set of data, largely outside the realm of their own experience, and to arrive at a decision through careful analysis. The mind-set is analytical, not reflective, and the control of meaning is logic. There is little, if any room for intuition or wisdom that transcend logic. In a traditional case study, the student *presumes* that the data is worthwhile, that the circumstances constitute a problem that is worth paying attention to, and that the solution can be found through a "scientistic" analytical process. Pragmatic Inquiry, to the contrary, asks students to evaluate their own experience as a source of value: to identify a Cq that matters to them, to analyse the Cq with the same rigor as the case approach, but to also reflect on the pre-scientific acts that uncover sources of meaning that are driving the inquiry. Unlike the traditional case study, students are asked to do something about it – to develop a strategy and act on it. Through the Pragmatic Inquiry process students discover that they are originators of value themselves, that they are responsible in the fullest sense of the self and not just machines for analysing data.

Pragmatic Inquiry in Higher Education

Steve Lu's learning experience is one of many that demonstrate Pragmatic Inquiry is a powerful pedagogical method for creating the kind of sustainable value envisioned by PRME. The PRME aspirations are much bigger than management education, however, and point to a deeper commitment common to any higher educational endeavour: a desire to build the future we want. Pragmatic Inquiry is more than a pedagogical technique for the management classroom, and has been used at all levels of higher education, ranging from undergraduate courses focused

Integrating Practice, Theory, and Meaning through Pragmatic Inquiry on sustainability, ecology, and business ethics all the way to executive education for professionals. Because Pragmatic Inquiry participants take ownership of their own inquiry, the learning environment is adaptive and responsive; the role of the instructor is not to transmit knowledge, but to facilitate on-going inquiry. Naturally students discover and present their findings in different ways and with differing levels of complexity, but the underlying arc of inquiry is the same. As students proceed through the five phases – Begin *attentively*, Explore *openly*, Interpret *imaginatively*, Decide *responsibly*, Act *courageously* - their own habits of mind and their own values become transparent in response to a challenge they wish to address.

Considering various criticisms from scholars like Sumantra Ghoshal, there appears to be a significant disconnect between the aspirations of PRME and management education. As a result, it is reasonable to wonder how management education in its current form can develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy. How can the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact become drivers of business strategy? This chapter has demonstrated that the PRME aspirations can indeed be a driver of business strategy, but only when PRME educators recognize that students themselves generate sustainable value through an arc of inquiry that leads to discovery and innovation. With Steve Lu's educational experience as an example, which culminated in the entrepreneurial venture of Garfield Produce Company, it is not difficult to see how the management classroom can put PRME into practice and help students become generators of sustainable value. Steve's arc of inquiry is one illustration of the power of Pragmatic Inquiry, which is why Georg Kell, former executive director of the United Nations Global Compact has been so supportive: "we have begun to incorporate Pragmatic Inquiry in our

work to further sustainable development – 'The Future We Want' – the most pressing task facing us today" (as quoted in Nahser, 2012, ix).

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Endnotes

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¹ Garfield Produce opened its doors on March 1, 2014 https://www.facebook.com/GarfieldProduce/info?tab=overview

² The phases of Pragmatic Inquiry (Begin, Explore, Interpret, Decide, Act) are rooted in philosophical positions about learning and about knowing that are made explicit in this case analysis. There is not room in this chapter to develop these arguments fully, so the philosophical assumptions are connected to the phases of Pragmatic Inquiry as follows: the Begin phase holds that all learning begins from doubt and that insights emerge from an iterative arc of inquiry. The Explore phase holds that social responsibility emerges from systems thinking. The Interpret phase holds that if students are to generate value they must see themselves as sources of value. The Decide and Act phases hold that effective, sustainable strategies must be driven by personal and organizational values. Each of the five phases also includes a particular mind-set or basic cognitional stance. Research from leadership studies as well as neuroscience, educators, psychologists, philosophers and theologians all point the need for multiple mind-sets to be most effective in engaging difficult situations to Begin *Attentively*, Explore *Openly*, Interpret *Imaginatively*, Decide *Responsibly*, and Act *Courageously*. For more on the mind-sets of Pragmatic Inquiry, see http://pragmaticinquiry.org/how-pi-works.php

³ For a more complete overview of Pragmatic Inquiry, see http://pragmaticinquiry.org/; Nahser, F. B., & Kell, G. (2013). Learning to Read the Signs: 2nd edition. Greenleaf Publishing. Appendix III includes a full copy of the Pragmatic Inquiry Field Notebook that explains the five phases (Begin, Explore, Interpret, Decide, Act) and the related activities, available at http://www.greenleaf-publishing.com/productdetail.kmod?productid=3793; see also Nahser, R. (2009). Journeys to Oxford: Nine Pragmatic Inquiries into the Practice of Values in Business and Education (1st ed.). Global Scholarly Publications; Kelley, Scott and F. Byron Nahser, "Developing Sustainable Strategies: Foundations, Method, and Pedagogy," Journal of Business Ethics, 123, 631-644, available at http://works.bepress.com/scott_kelley/16/

⁴ Pragmatic Inquiry has been used as a pedagogical method and a consulting method in for-profit and non-profit settings, including the PRME Global Forums in 2012 and 2014.

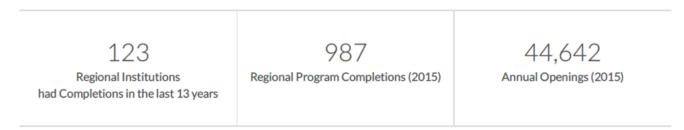
⁵ All selections and quotes are taken from Steve Lu's ePortfolio with permission. It is available at https://depaul.digication.com/eco798_lu/About_me/published

⁶ For a practitioner's overview of Pragmatic Inquiry see the Pragmatic Inquiry Field Notebook in Appendix III of *Learning to Read the Signs*, 2nd edition available at http://www.greenleaf-publishing.com/productdetail.kmod?productd=3793, visit http://pragmaticinquiry.org/, or contact Scott Kelley skelley6@depaul.edu for samples of course syllabi

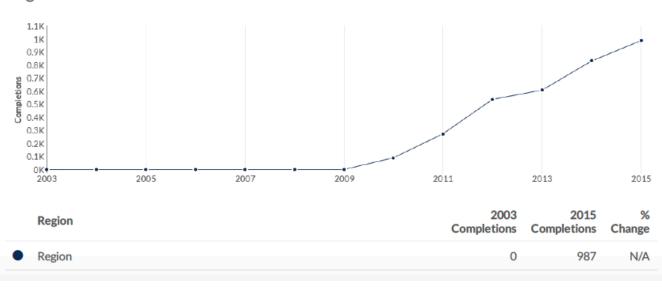
APPENDIX 5 Classification of Instructional Programs: CIP: 30.3301 Sustainability Studies Graduation Trends

Sustainability Studies - US

Program Overview

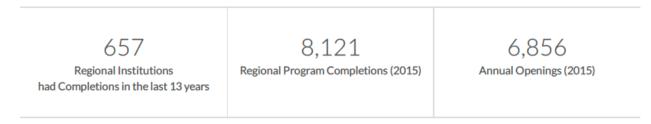


Regional Trends

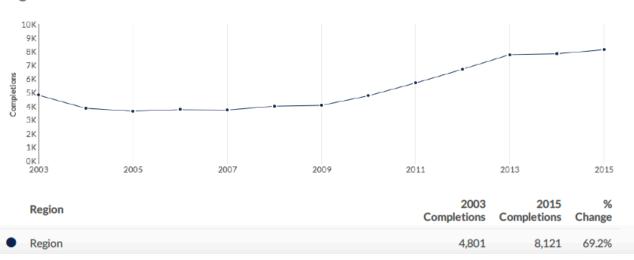


Environmental Studies - US

Program Overview

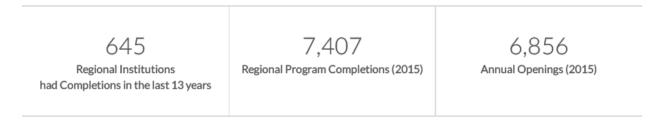


Regional Trends



Environmental Science - US

Program Overview



Regional Trends

