**PRESIDENT’S LETTER**

**The Buzz in China**

Norma J. Harrison, CEIBS, President, DSI

Things have been abuzz in China with the Beijing Olympics and with associated events in other cities like Shanghai, Hong Kong, and Qingdao. But the attention has been in Beijing where the big questions have been around, “How did they build all these fantastic event buildings in such a short time?” After nearly a year living in China, I have ceased to ask myself such questions. Early on in my stay, I visited the Lingang Industrial Area and Logistics Park (75 km south of downtown Shanghai) with its long bridge to Yangshan deep water port. For about 10 years, the government was looking for an alternative to its ever-silting ports on the Yangtze River, as well as up and down the coast, finally settling on a rocky island, Yangshan, southeast of Shanghai. Trouble was, the island is 32 km from the shore over rough seas, but once decided, they built the six-lane Donghai Bridge out to the island within three years. Some parts were so deep that the bridge became a suspension bridge. This whole island now forms the deep-water port for the container ships headed for North America and Europe. Until recently, this bridge was the longest in the world (now taken over by another one to Ningbo). Multiply this by a number of other expansion projects in roads, shipping, railways, airports, opening up vast areas of the country and giving access to valuable resources like gas and oil, and you will just scrape the surface of an understanding of the development of the supply chain infrastructure in China within a relatively short period.

And yet, we see myriad of other examples in the Western world where public infrastructural projects are grossly overrun in time and expenditure, and realize that there has been a large element of complacency in its planning and implementation, especially when using public monies. At the same time, there are fears expressed of the loss of market share of Western goods and services, loss of jobs, loss of I.P., etc., etc. Has there been a lack of direction and motive in this competitive race?

I am reminded of my student days when Machiavelli’s *The Prince* was advocated as the book to read in times of wars,

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FROM THE EDITOR

KRISHNA S. DHIR, Editor, Berry College

Since the publication of the last issue, we have lost another one of the original founders of the Decision Sciences Institute. Claude McMillan, Jr., Professor Emeritus of Management Science and Information Systems at the University of Colorado, passed away in Boulder, Colorado, on May 20th, 2008. His passing marks yet another milestone in the history of our Institute.

This is the season of the Olympics—the season that inspires humanity to reach for its greatest achievements. In her DSI President’s Letter, Norma Harrison of CEIBS, China, refers to the relevance of the Eastern thought and experience to the times we live in. Not everything we know in the West is new under the sun. As we confront new challenges and search for new paradigms, we would do well to heed her advice and become more aware of things beyond our ken.

We begin this issue with a comprehensive introduction to the information systems education in Taiwan by Clive Sanford of National Cheng-Chi University. Dr. Sanford describes Taiwan as being in “nascent stages of development” as it seeks “to become more international.” Nevertheless, already “nearly 80 percent of the notebook computers worldwide are produced through [its] well-developed supply chains…. ” Dr. Sanford provides an excellent sketch of the Taiwanese profile and offers strategies for continued improvement of information system education in that country.

As an educator, Bih-Ru Lea of Missouri University of Science and Technology, our feature column editor for the “In the Classroom” column, gives considerable thought to strategies that will ensure that our students “retain what they have learned, apply [their learning] to new situations, build upon that learning to develop new perspectives, and continue the learning process.” In this issue, Dr. Lea describes her experience with Clickers, a radio frequency device that allows students to respond interactively to classroom proceedings through a small hand-held remote keypad. She finds that by using Clickers her students show increased levels of motivation, attendance, preparation, and focus. She reports that “the use of clickers creates higher interactivity and active learning environment….”

Dayna Simpson of Oregon State University and Feature Editor Danny Sampson of the University of Melbourne explore the role of supply chain processes in improving environmental performance and impact. In the “Production/Operations Management” feature column, they provide an overview of developing strategies for green supply chain management and offer an excellent agenda for further research. They remind organizations to involve “suppliers and third parties in the greening process early” to ensure “a sustained competitive advantage….”

In the “Deans’ Perspective” feature column, Dan Dalton of Indiana University revisits the issue of business school governance with the question “whether a business school should be managed as a business.” He offers an exciting framework to examine various characteristics of an enterprise and examines how a business school relates to these characteristics. So, are business schools a business? For the answer, you will have to read Dr. Dalton’s fine essay.

In the “Doctoral Student Affairs” feature column, Feature Editor Xenophon Koufteros of Texas A&M University and George Marcoulides of the University of California–Riverside observe that “a number of doctoral students will never complete their dissertation work or ever begin publishing in scholarly outlets.” Of those who do, a number will never make tenure as members of a faculty or will stop publishing after being tenured. In their outstanding essay, Drs. Koufteros and Marcoulides discuss issues that require our attention to enhance the success of doctoral students as researchers throughout their academic careers. Their
While historically Taiwan has a long and rich cultural history, the country did not become a true democratic state until the early 1990s. The higher-educational infrastructure is therefore still in its nascent stages of development as the government, faculties, and students seek to become more international and engage in and strengthen its ties with other international institutions and researchers throughout the world. This article describes the current status of higher education in Taiwan and the future aspirations of government and citizens for advancing and improving higher education in Taiwan. The focus of most of the discussion is on the information systems discipline, primarily because most of the course work that is offered in the decision sciences is fragmented across a variety of curriculums, which includes information systems, business administration, and industrial management.

The main island of Taiwan, formerly known as Formosa, is located in East Asia off the coast of mainland China, southwest of the main islands of Japan. The island is 394 kilometers (245 miles) long and 144 kilometers (89 miles) wide and consists of steep mountains covered by tropical and subtropical vegetation. Taiwan’s population is over 23 million and the country is most recognized for its semiconductor device fabrication industry. Nearly 80 percent of the notebook computers worldwide are produced through the well-developed supply chains of the manufacturing sector that link them to other firms in China, Vietnam, and distributors in the U.S. and Europe. The strong high-tech industry provides a good job market for students who major in information systems (IS) and the decision sciences (DS).

Historical Background

In 1949, during the Chinese Civil War, the Kuomintang (KMT), led by Chiang Kai-shek, retreated from Mainland China and moved the Republic of China (ROC) government from Nanjing to Taipei. From this period through the 1980s, Taiwan was governed by a party-state dictatorship, with the KMT as the ruling party.

After 1988, President Lee Teng-hui relinquished more governmental authority to the native Taiwanese and sought to democratize the government. Lee’s reforms included printing banknotes from the Central Bank rather than the Provincial Bank of Taiwan, and disbanding the Taiwan Provincial Government. Under Lee, the original members of the Legislative Yuan and National Assembly, elected in 1947 to represent mainland constituencies and having taken the seats without re-election for more than four decades, were forced to resign in 1991.

In the 1990s, the ROC transformed into a true democratic country as President Lee Teng-hui was elected by the first popular vote held in Taiwan during the 1996 presidential election. In 2000, Chen Shui-bian of the Democratic People’s Party (DPP) was elected as the first non-KMT president and was re-elected to serve his second and last term. During this time political parties emerged in Taiwan with the formation of the Pan-Blue Coalition of parties led by the KMT, which favored eventual Chinese reunification, and the Pan-Green Coalition of parties led by the DPP, which favored an eventual and official declaration of Taiwan independence. The Chen administration pushed for referendums on national defense and UN entry in the 2004 and 2008 elections; however, this
All universities and colleges undergo tri-annual program reviews by the MOE. A high-performance rating generates more government funding, and poor performance ratings results in a reduction of student quotas. The reviews, which are conducted at the departmental level, are similar to the AACSB accreditation process. National Sun Yat-Sen University and National ChengChi University have AACSB accreditation, and other research oriented institutions are in the process of applying for AACSB accreditation.

The quality and prestige of the universities can be determined by their position in a three-tiered system. The first tier, which includes nine “elite” universities, offers the majority of the master’s and doctorate programs and is given the highest priority for government grants. There are four universities in this category that offer degrees in information systems: National Taiwan University in Taipei City, National ChengChi University in Taipei City, National Sun Yat-Sen University in Kaohsiung City, and National Central University in Taoyuan County. The second tier is largely comprised of public universities, and the third tier is populated by the private universities.

Student Enrollments
Commensurate with the growth of the number of higher-education institutions, student enrollments have tripled during the past 15 years. There are now more than 1 million students whose enrollments at most Taiwanese universities vary from 8,000 to 30,000, with an average of around 12,000. There are now more than 40,000 IS majors in 120 IS programs in management or commerce faculties, with program sizes ranging from 100 to 3,000 students. More than 10,000 students graduate annually from all the IS programs, with most receiving multiple job offers from firms that are most often in the banking and manufacturing sectors.

All degree programs must obtain official permission from the MOE before they can recruit students. Undergraduate student admission is processed by the College Entrance Examination Center through administration of the college entrance examination, which is similar to the SAT. The examination scores dictate which tier students can apply to. They are subsequently assigned to their preferred departments, with the size of the departmental enrollments being regulated by the MOE. Primarily because of the presence of a strong job market, the Taiwanese IS departments have not experienced the decrease in enrollments that have been troubling IS departments in the U.S. during the early part of this decade.

The graduate programs, which began at National Sun Yat-Sen University and National ChengChi University in 1989, are experiencing the largest growth rates. There are now more than 40 graduate IS programs that offer master’s degrees. Since their inception, enrollments in all master’s programs have increased by 410 percent and in the doctoral programs by 275 percent. Before 1996, top students went abroad (especially the U.S.) for their graduate studies. Now, over 80 percent of the students seek their graduate degrees in Taiwan with the goal of securing employment in the high-tech industry. In addition to standard MBA programs, most of the first tier business schools offer International MBA (IMBA) and Executive MBA (EMBA) programs. In order to attract as many international students as possible, the IMBA programs offer their courses in English. Students apply to individual programs and are admitted by program admission committees, and demand for these programs has remained strong, resulting in an average acceptance rate of full-time master’s programs that is below 10 percent. Because of the success of the high-tech manufacturing industry, most IS master’s students can find good jobs that pay much higher salaries than those students who elect to acquire doctoral degrees and work in academia. The starting salary for new assistant professors is approximately $30,000 per year, whereas an IS engineer with a master’s degree and a few years of experience can earn twice as much. Master’s studies are two-year programs with 30–42 credit hours and require a master’s thesis.
The first doctoral programs were offered by National Sun Yat-Sen University, National Chiao Tung University (in Hsinchu City), and National Central University. There are 12 IS doctoral programs that admit as many as 17 doctoral students every year, and overall grant more than 30 doctorate degrees each year. Because of the higher salaries that are available in industry, there is less demand for the doctoral programs, and the average acceptance rate is therefore usually higher than 30 percent. The typical length of study for doctoral students is five years. While the number of required courses may vary, the numbers of elective courses that are offered predominate and thus offer flexibility in designing customized plans of study. Doctoral students are required to publish at least one paper in a Web of Science (SCI or SSCI) journal before their graduation. While it is relatively easy for graduates to find employment in the third tier, or teaching schools, finding positions in the research schools is very competitive.

Information Systems Curriculums

The first IS department was established in 1981, and since then the number of IS departments has increased to 120. The role of information systems and information management in Taiwan is different from the typical IS programs in the U.S. The composition of the IS curriculums reflect the nature of the IS job market, where students need to acquire both technical and managerial skills. In addition to course work in strategic and organizational aspects of information systems, students are required to incorporate principles of design science in their programming and systems development projects and take courses in computer algorithms, data mining, computer security, and computer graphics. The curriculum design for teaching-oriented technological universities is often more technically oriented. While the number of technical courses outnumber the IS courses at the undergraduate level, IS courses that focus on strategic and managerial issues are more dominant at the master’s level. Therefore, most IS departments have an eclectic mix of faculty whose expertise includes management information systems (MIS), computer science (CS), and the decision sciences.

Faculty Profiles

In order to accommodate the rapid growth in the number of universities, the number of full-time faculty increased by 150 percent, from the 18,020 in 1995 to the over 45,000 that is currently employed. More than 90 percent of the faculty have doctoral degrees from the U.S. or European universities. In addition to those with degrees in MIS, CS, and IS, some have degrees in production and operations management, industrial engineering, and other quantitative-oriented disciplines. Faculty who are employed in the first-tier universities are expected to conduct research, which is measured by the number of funded projects and journal publications. The major source of funding is through the National Science Council (NSC). Active researchers can receive up to two grants, where a total amount of $30,000 each year can be used to support graduate research assistants and cover other expenses. Most of the IS research areas are congruent with contemporary trends, such as e-commerce (with some emphasis on m-commerce), DSS, technology adoption issues, and knowledge management. The popularity of e-commerce and m-commerce is due in part to NSC grants that are targeted to these areas and large government investments in the telecommunications infrastructure and its promotion of both on-line and mobile services. Most academics in the research universities are required to publish in international journals, with a major emphasis on Web of Science journals. In order to encourage research publications, some universities provide monetary rewards, which can be substantial for articles that are accepted to the Financial Times 100 or other top-tier journals. In addition to international journals, there are a few local Chinese journals that include the Journal of Information Management and Systems and Management. A citation database, the Taiwan Social Science Citation Index (TSSCI), is managed by the Social Science Research Center at the NSC and includes about eight journals in business and management.

Since, in comparison with Western salaries, faculty compensation is low (normally 30-40K USD per year), faculty in the research universities have an opportunity to supplement their income through research grants, monetary rewards for publishing, and teaching additional courses in graduate programs such as the IMBA and EMBA. One reason for the low salaries is the government’s policy to peg salaries across all disciplines according to rank and experience only. A similar scheme is used in mainland China; however, additional compensation is possible there through the establishment of multiple tiers within each rank, which are determined by the number of publications that a faculty member has. The policy in Taiwan to artificially control faculty compensation in an egalitarian way has been criticized by faculty who are in disciplines that either have a shortage or have strong market demands; however, no changes to the current salary structure is under consideration.

Strategies for Improvement

Administrators and academics in business schools that are in the top tier are interested in improving their rankings in indexes such as the Financial Times Top 100 MBA programs, but they have yet to gain traction in attaining this goal. While they do not have the advantages of universities in Hong Kong, which were largely influenced by the presence of the British, and Singapore, which is a small country with an influential government, there are several initiatives that need to be undertaken in order for them improve their international stature. Taiwan can learn from the efforts in mainland China to stem the brain drain of students seeking graduate education overseas by mandating graduate and some undergraduate courses to be taught in English and by establishing strong alliances with

See INTERNATIONAL, page 11
Clickers Adoption in a Small Class Setting

by Bih-Ru Lea, Missouri University of Science and Technology

Teaching involves both the process of conveying/transferring knowledge and the process of knowledge retention. As an educator, we hope students to leave our class with knowledge and/or skills they did not have when they began the class. Months later, we hope those same students retain what they have learned, apply it to new situations, build upon that learning to develop new perspectives, and continue the learning process. Many of us believe that the most effective way to achieve this level of learning is through a balanced combination of traditional lecture and active learning activities (activity-based experience), as suggested by Dale’s Learning Pyramid shown in Exhibit 1.

Technology not only revolutionizes the way we live, think, and do things, it also changes the way we learn and teach. The new student generations are often characterized as fast-paced multi-tasking technology savvy Net Generations (or N-Geners) who seek immediate gratification (Tapscott, 1998). Although traditional lecture techniques (e.g., lecture, reading assignments, audio/visual and demonstration) are effective in conveying foundation concepts and knowledge to students and in providing background knowledge, they are often passive in nature and lack the excitement the new generations are looking for. Active learning techniques (e.g., discussion group, practice by doing, teach others/immediate application) could be effective in improving knowledge retention rate, but we often found it a challenge to break the ice to bring discussions to the level we hoped for. How do we keep the fast-paced, multi-tasking generation engaged to learn and master the knowledge we teach in their learning process, whether it is during the passive or the active stage?

While others will be investigated it is no consistent results on whether the use of clicks improves student learning outcomes, professors have reported that attendance and class participation are up, and students appreciate the quick feedback in large classes where attendance and class participation are difficult to maintain. Clickers are also effective to provide pre-assessment to measure what students know before lectures, to ensure students have done their assigned reading, or to get students to confront common misconceptions; to facilitate testing of conceptual understanding of a lecture to confirm student’s knowledge retention; to facilitate discussion and peer instruction; or to reduce grading and assessment efforts.

As most clicker adoptions reported are in a large class setting, this report will examine the impact of clicker applications in a small class environment. A Managerial Accounting class, an upper division (senior) level required core course, in a business administration department is used in this report. The class is compu-
tation intensive, topics build upon each other, and discussions are essential to the understanding of materials (i.e., there is no absolute correct or incorrect answer as model selections require reasoning in many cases). The class size was 20 for fall 2006 and 13 for spring 2007. Clickers were used in fall 2006 and spring 2007. No student had prior clicker experience in fall 2006 while 23 percent of students in spring 2007 had used a clicker in a prior class. A typical class structure is provided in Table 1. Clickers were used in quiz, lecture-exercise cycles, and a group discussion and problem solving period in fall 2006 and spring 2007.

A review question set, lecture slides, and a problem-solving worksheet set were provided to the students when a new chapter/topic was assigned. I started the class with general announcements and agenda to provide an overview to the class, so students knew what to expect from that class. A question-and-answer period was then followed. Students were encouraged to ask questions from readings, review questions sets, and materials covered from previous class period. Once a question was asked, I would ask a few volunteers to give his/her answer with rational/explanations and then divided the class into small groups (three to four students a group) to discuss all possible answers presented for a few minutes. In many cases, students were able to answer those questions asked by themselves without intervention from the instructor.

Students often became engaged after the question-and-answer period and that provided a good atmosphere to give a five-minute quiz based on their reading assignments or to introduce new materials. The quizzes were designed to create incentive for students to complete the reading assignments before class, be rewarded for doing so, to stimulate discussion at the beginning of class, and give the instructor a chance to revise the lecture plan to respond to student's needs. The quiz carried sufficient weights (around 12 percent of a student's semester grade) so that students took them seriously but not so much that they would feel anxious about them. Quizzes were in paper format and students would receive their quiz result at the beginning of next class before the use of clickers. Quizzes were given via clickers for fall 2006 and spring 2007, and students received immediate feedback. Furthermore, I was able to use quiz results to adjust my lecture plan immediately when clickers were used. I explained the most missed questions and then re-tested students with a similar question to ensure that they fully understood the materials before moving on to the next topic. It was observed that students were more focused and would ask questions if they didn't understand them because they knew that I always had a re-test question planned afterward.

Researchers have shown that students have an effective attention span of 10 to 15 minutes, so I designed my lecture and problem-solving exercises in several "lecture-exercise" cycles to

Exhibit 1: Dale's Learning Pyramid.
keep students focused. The lecture slides have blanks that students need to fill during the lecture, so students could write down important concepts using their own words to improve their knowledge retention. With clicker quizzes, I was able to confirm that students have become acquainted with basic terminologies and definitions in their preparation for class, so I gave a three-to-five-minute short lecture focusing on one concept that would be difficult for students to learn on their own or was needed for the problem-solving exercise. The exercise problem worksheets were carefully designed so they could be divided into several subsections to correlate with the short-lecture designs (and lecture slides). During the “lecture-exercise” cycle, students followed a step-by-step problem-solving process led by the instructor. Clicker questions were used to confirm students’ understanding after each “lecture-exercise” cycle in fall 2006 and spring 2007.

A few similar questions/problems to the in-class exercises were assigned to students to solve after the completion of the instructor-led exercises. If time allowed, students were called to the board to solve the assigned problems individually or as a team. Otherwise, students were asked to solve the problem after class and discuss their answers in next class period. Once students had their initial answers, these review problems were also presented as clicker questions for team competition in fall 2006 and spring 2007. The last five minutes of class time was used to provide students with a brief review of concepts covered that day and to give an assignment and plan for the next class.

Students were asked to provide feedback on clicker usage in a mid-semester survey one week after the first test (during the fifth week of the semester) and in an end-semester survey one week before the end of the semester (during the 14th or 15th week). Both surveys used a 5-point opinion Likert scale with 1 representing “strongly disagree” and 5 representing “strongly agree.” The survey questions, mean responses of both surveys, and p values of the two-group mean tests are presented in columns 1 to 4 of Table 2, respectively. One of the reasons to conduct the same survey at two different times was to investigate whether student’s perceptions changed over time. As I used clickers in almost every class, it was important to know whether it is effective throughout the entire semester as the new N-Geners constantly seek new thrills, whether it is from technology or other means. Based on results from the 2-group mean test, it was observed that student perceptions shift to a more positive direction, although they are not statistically significant.

It is also important to investigate whether the effectiveness of clicker usage would change as more classes adopted clickers. Clickers were first used in my fall 2006 class and no students had prior clicker usage experience at that time, while about 23 percent of students had prior clicker usage experiences in my spring 2007 class. It was interesting to learn that student perceptions toward the use of clickers did not change with more exposure to the device, as shown in columns (4) and (7) of Table 3. However, it is also interesting to point out that more students perceived that clickers made learning fun in fall 2006 while the opposite was observed in spring 2007, although the difference was not statistically significant, as shown in row (i) of Table 3. It is likely that more experienced students realized that clickers were not just a gaming device, but also a tool to improve their learning experience. This observation was more evident as there was no difference in all other factors between the two types of students. As observed from p-values shown in columns (4) and (7) of Table 3, both types of students felt that the use of clickers motivated them to attend, prepare for, and stay focus during a class; promoted active learning and higher interactivity; enabled the instructor to determine whether a topic needed more in-depth discussion or coverage; helped them to confirm their learning in a timely manner; and consequently helped them to learn better in the class.

As educators, we know that reading class materials (chapters or articles) before class is beneficial to student’s learning outcome, and regular attendance is important for classes so that topics build upon each other. It is interesting to learn that the use of clickers creates interest and motivation for the new N-Geners to attend, prepare for, and stay alert and focus during a class because that has been a challenge for many instructors like me. Discussions and peer instructions have been proven to be effective active learn-

### Table 1: Typical Managerial Accounting class structure.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Time allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Class announcement and agenda</td>
<td>3-5 min.</td>
</tr>
<tr>
<td>2. Questions and answers period</td>
<td>Varied (5-15)</td>
</tr>
<tr>
<td>3. Possible Quiz</td>
<td>5-10 min.</td>
</tr>
<tr>
<td>5. Group discussion and problem solving</td>
<td>10-15 min.</td>
</tr>
<tr>
<td>6. Review, assignment, and plan for next class</td>
<td>3-5 min.</td>
</tr>
</tbody>
</table>
### Table 2: Survey results.

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Survey 1 Mean ($\mu_i$)</th>
<th>Survey 2 Mean ($\mu_j$)</th>
<th>$\mu_i \neq \mu_j$ p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) The use of clicker quizzes creates interests and motivation to attend the class</td>
<td>3.484</td>
<td>3.531</td>
<td>0.8648</td>
</tr>
<tr>
<td>(b) The use of clicker quizzes motivates me to prepare for the class</td>
<td>3.290</td>
<td>3.313</td>
<td>0.9314</td>
</tr>
<tr>
<td>(c) The use of clicker quizzes motivates me to stay alert and focus during a class</td>
<td>3.581</td>
<td>3.500</td>
<td>0.7686</td>
</tr>
<tr>
<td>(d) The use of clicker quizzes promote active learning (peer discussion and instruction)</td>
<td>3.742</td>
<td>3.750</td>
<td>0.9752</td>
</tr>
<tr>
<td>(e) The use of clicker quizzes creates higher interactivity in the classroom</td>
<td>3.839</td>
<td>3.781</td>
<td>0.8014</td>
</tr>
<tr>
<td>(f) The use of clicker quizzes provides faster feedback</td>
<td>4.065</td>
<td>4.188</td>
<td>0.4944</td>
</tr>
<tr>
<td>(g) The use of clicker quizzes helps me to identify and confirm my understanding of materials</td>
<td>3.387</td>
<td>3.656</td>
<td>0.3033</td>
</tr>
<tr>
<td>(h) The instructor uses clicker quizzes to determine what topics to cover more in depth</td>
<td>3.516</td>
<td>3.469</td>
<td>0.8324</td>
</tr>
<tr>
<td>(i) The use of clicker quizzes makes learning fun</td>
<td>3.065</td>
<td>3.063</td>
<td>0.9938</td>
</tr>
<tr>
<td>(j) The use of clicker quizzes helps me to learn better in this class</td>
<td>3.097</td>
<td>3.226</td>
<td>0.6194</td>
</tr>
</tbody>
</table>

*Refer to column (1) of Table 1 for complete survey questions.

### Table 3: Survey results’ comparison between semesters.

<table>
<thead>
<tr>
<th>(1)</th>
<th>Survey 1</th>
<th>Survey 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(2) fall 2006</td>
<td>(3) spring 2007</td>
</tr>
<tr>
<td>(a) Attend class*</td>
<td>3.444 3.538</td>
<td>0.812</td>
</tr>
<tr>
<td>(b) Prepare for class</td>
<td>3.278 3.308 0.937</td>
<td>3.158 3.538 0.312</td>
</tr>
<tr>
<td>(c) Stay focus</td>
<td>3.611 3.538 0.845</td>
<td>3.526 3.462 0.880</td>
</tr>
<tr>
<td>(d) Active learning</td>
<td>3.667 3.846 0.604</td>
<td>3.842 3.615 0.578</td>
</tr>
<tr>
<td>(e) Interactivity</td>
<td>3.722 4.000 0.423</td>
<td>3.684 3.923 0.455</td>
</tr>
<tr>
<td>(f) Faster Feedback</td>
<td>4.167 3.923 0.333</td>
<td>4.316 4.000 0.241</td>
</tr>
<tr>
<td>(g) Confirm Learning</td>
<td>3.556 3.154 0.367</td>
<td>3.632 3.692 0.842</td>
</tr>
<tr>
<td>(h) In depth coverage</td>
<td>3.389 3.692 0.312</td>
<td>3.316 3.692 0.278</td>
</tr>
<tr>
<td>(i) Fun</td>
<td>3.333 2.692 0.077</td>
<td>3.158 2.923 0.541</td>
</tr>
<tr>
<td>(j) Improve Learning</td>
<td>3.167 3.000 0.669</td>
<td>3.263 3.231 0.929</td>
</tr>
</tbody>
</table>

*Refer to column (1) of Table 1 for complete survey questions.
ing methodologies and are important for subjects/classes where model sections or answers rely heavily on reasoning. I found that the use of clickers was very effective in breaking the initial ice, or silent period, to bring as many differing viewpoints from as many students as possible. When discussions were needed in fall 2006 and spring 2007, I often made up a clicker question that had several possible answers and one open answer, “others” or “none of the above.” As there was no clear correct or incorrect answers, student responses were often diversified and that created a good starting point for group discussions and debates. Once each group presented group results, students were given a second chance to respond to the same clicker question and answers; multiple answers based on different assumptions and reasoning in many cases would then be revealed. I noticed that students, especially those who were often quiet and normally would not express their opinions, were significantly more involved in discussion when clickers were used than classes without clickers. My observations are also supported by data shown in rows (d) and (e) of Table 2.

It is equally important for both instructors and students to know that students have learned knowledge and/or skills they did not have when they began the class. Although there are different means (paper quiz, online quiz, verbal description, etc.) to confirm students’ understanding of materials, I found that the use of clickers was more effective than other means, especially for the new N-Geners students, as it provides immediate feedback in a game-playing setting. Like many other instructors, I often have to guess whether students understood the topic by looking at their facial expressions during a class period. I find that the clickers’ instant feedback feature is invaluable as it allows me to verify whether students grasped the concepts and to adjust my lecture plan accordingly to ensure students have mastered the topic before moving on to the next one. However, as an educator, it is most rewarding to know that students perceived the use of clickers as a means to help them confirm their understanding of materials in a timely manner and has helped them to learn better in my class instead of just adding another technology thrill to their learning process.

Conclusion

Contrary to common application in classes with large enrollment, this report presented several interesting observations of clicker applications in a small business class setting. It is observed that students are motivated to attend, prepare for, and stay focus during the class. Students also felt that the use of clickers creates higher interactivity and active learning environment, helps them to confirm their understanding of materials, and consequently help them to learn better. It is valuable to compare student academic performance with sound experiment design. It would also be invaluable to have more investigations and cases to address the effectiveness and applicability of clickers in different subject areas.

Reference


Call for opinions and comments

“The Classroom” column wishes to publish your comments and opinions on selected articles to facilitate more in-depth pedagogical discussion in the issue following the article’s publication. The “Clickers Adoption in a Small Class Setting” is the first “call for opinions and comments” article. To ensure your comments are considered and included in the October issue, please send your comments, opinions, and/or experiences on this article to Dr. Bih-Ru Lea at leabi@mst.edu by September 19, 2008.
Developing Strategies for Green Supply Chain Management

by Dayna Simpson, Oregon State University, and Danny Samson, University of Melbourne

The field of supply chain management has more recently directed its attention to the role of the supply chain in both (a) impacts to the natural environment and (b) the generation of environmental performance change. This shift in our expectations for the supply chain has arisen from growing social pressure, legislative changes around packaging and end-of-life goods, identified supply chain risks, and increasing use of environmental requirements being cascaded from customers to suppliers. Several years of research into the occurrence of green-supply-chain-management activity (GSCM) has led to a general acceptance of its relevance and purpose. At this point in the field’s development, however, there is substantial scope for improving our understanding of potential strategies of GSCM rather than just a series of related greening practices without a definite purpose. Owing to increasing and rapid developments in the field of green supply chain management, we describe an evolving set of distinct supply chain strategies in support of this type of activity and propose some directions for the future. In the manner of Fisher (1997)—what might be the most appropriate GSCM strategy for a particular product, process, or industry context?

Background

An increasing number of organizations have introduced ‘greening’ requirements to both upstream and downstream supply chain activity—purchasing clauses, targets, practices, and technologies. Automotive firms frequently require suppliers to certify to ISO 14001 (Toyota and Ford). Starbucks Coffee as well as Ben and Jerry’s require raw material suppliers to meet guidelines for sustainable farming. Other organizations have introduced purchasing requirements that ensure suppliers avoid specific materials such as chemicals that may be deemed hazardous to the environment (DuPont, Seventh Generation, and organic supply chains). An increasing number of supply chains invest in recycling systems intended to retrieve waste or used product from customers (Kodak, Hewlett Packard, and Fuji-Xerox).

Much is still unknown, however, regarding the management efficacy and likely costs to the supply chain from altering its traditional focus of cost, quality, and service to include environmental performance. The extent of the supply chain’s legitimate control over such environmentally focused activity is an area of active debate. For example, the organization that claims ‘carbon neutrality’ for its product supply chain may be unlikely to effectively monitor or control the carbon generating activities of upstream suppliers. The supply chain is comprised of a series of entities, activities, customers, cultures, and goals that frequently fail to find alignment on anything but the most basic of concerns. Very few activities in a supply chain are likely to succeed if they are not accompanied by some form of relationship control that will (a) justify the level of investment for both parties and (b) guarantee its implementation.

The explosion of GSCM activity in the practical realm has led to an increasing body of empirical work regarding both external influences leading to the uptake of green supply chain management practices, and their impact on firm performance. Investigation in this area has generally fallen into four main categories:
• Use of compliance-based strategies that support the cascading of basic environmental requirements generically across all suppliers (Melnyk, Stroufe, & Calantone, 2003; King, Lenox, & Terlaak, 2005)
• Aligning supply chain goals for both efficiency and pollution-reduction (Corbett & Klassen, 2006; Rothenberg, Pil, & Maxwell, 2001)
• Transfer of environmentally specific innovations or technologies from customers to suppliers (Geffen & Rothenberg, 2000; Klassen & Vachon, 2003)
• Collaboration or competition between firms to develop re-manufacturing or closed-loop recycling systems (Guide & Van Wassenhove, 2002; Pagell, Wu, & Murthy, 2007).

Relevance of the Supply Chain Relationship
Supply chains achieve performance improvements or resource development through either building-specific capabilities over time or by looking to the supply relationships to gain access to new resources (Eisenhardt & Schoonhoven, 1996). This may occur through either: (a) coercive pressure—pass responsibility upstream or introduce contractual clauses for suppliers (Pagell et al, 2007; Zhu & Sarkis, 2007); or (b) collaboration—utilize social capital within existing relationships to develop new competencies (Liker & Choi, 2004; Paulraj, Lado, & Chen, 2008). With regard to environmental performance management, coercive pressure provides a minimum level of compliance to requirements amongst suppliers but tends to be limited in its capacity to encourage advanced performance outcomes such as new knowledge or innovation. Collaboration on environmental performance issues tends to increase the range and complexity of possible outcomes—such as new products or technologies—but requires a far greater level of involvement for customers and suppliers.

Several modes of interaction between a customer and its suppliers are available with the express purpose of altering or improving aspects of supply chain performance. These are essentially competitive pressure (rely on the market); evaluation or certification schemes (rely on a third party); incentives; and direct involvement (Krause et al, 2000; Modi & Mabert, 2007). All modes are possible—though with different outcomes—regardless of whether the climate of a relationship is more coercive or collaborative. We draw on the relationship implications of supply chain performance development as well as the possible pathways to development of supply chain resources to establish a typology of strategies for GSCM. We move away from the traditional discussion of GSCM strategies built around reputational or societal pressures and instead build a typology based in more traditional supply chain management theories to move the GSCM field forward.

Strategies of Green Supply Chain Management

Risk-based Strategies
The simplest strategy of GSCM with regard to inter-organizational investment resource development is one of risk minimization. Firms adopting this strategy are proposed to do so in response ostensibly to stakeholder requirements. Such a strategy is ideal for the organization that retains minimal internal environmental management resources or has only recently begun to consider the introduction of a supply chain greening program. It is based on minimal inter-organizational engagement. Such efforts might involve the inclusion of basic clauses in purchasing contracts for suppliers to meet all relevant regulatory requirements. Most frequently used with this approach is the cascading of an established international standard such as ISO 14001 (King, Lenox, & Terlaak, 2005). The use of an existing performance standard, an approach used initially by the Ford Motor Company with its suppliers and now more frequently by other organizations for their supply chains, offers: (a) established environmental performance benefits (Melnyk, Stroufe, & Calantone, 2003), (b) third party or arms-length management of performance, and (c) a system recognized globally by other organizations. This third aspect improves the efficacy of uptake by suppliers because the system is recognized by the market and other industry members, reducing the ambiguity of desired performance levels and minimizing the need for customer involvement. From the perspective of competitive advantage, however, the benefits are limited because of the ease of implementation, a lack of uniqueness, and a growing use by other supply chains. A similar approach to basic certification schemes is the use of broad statements within purchasing guidance or principles to include ‘supplier activities’ among the organization’s environmental responsibilities. Such systems based on risk minimization only and managed in a climate of low relational investment only guarantee supply chain compliance with local or national regulations. The end result being that risk can be minimized and reputation enhancement is possible, but with no additional innovation or complementary economic benefits are likely.

Efficiency-based Strategies
A more complex and developing strategy in recent years has been the ‘eco-efficiency’ or ‘lean-and-green’ approach to GSCM. This type of strategy derives environmental performance benefits for the supply chain beyond mere regulatory compliance through the requirement for suppliers to meet operations-based efficiency targets. Much of the environmental performance benefit arises from specific manufacturing practices that have been found to provide secondary environmental performance benefits. The point of departure for the efficiency-based strategy from the risk-based strategy is the availability of dual economic and environmental performance benefits to the supply chain and the requirement for higher levels of engagement between customers and suppliers. The efficiency-based strategy ties environmental performance to operational processes in the supply chain, and this strategy allows the extension of performance...
requirements into the supply chain that maximize economic performance and provide secondary environmental performance benefits through waste and resource use reductions. It requires more comprehensive and supply chain specific performance specifications than the simpler risk-based strategy. It also requires a higher level of involvement between supply chain partners arising from the use of more complex inter-firm performance requirements. Using this strategy to facilitate greater efficiency in the supply chain does not require the development of co-specialized resources specific to environmental performance. The necessity for collaboration on efficiency, however, provides a facilitating role for context-specific, complex problems such as waste reduction and recycling (Geffen & Rothenberg, 2000; Klassen & Vachon, 2003). The strategy can provide a cost-reduction advantage to the supply chain and readily fits with pre-existing organizational goals of optimization. But the efficiency-based supply chain strategy does not allow for more knowledge-intensive environmental management activities such as product design, material substitution, or innovation. Product recalls because of a poor choice of low-cost but hazardous materials represent the inherent risk in focusing only on efficiency in the supply chain. The efficiency-based strategy is considered technically weak but more socially complex than the risk-based strategy.

Innovation-based Strategies

The innovation-based green supply chain management strategy is distinct from the efficiency-based approach because of its use of a supply chain environmental performance strategy that is more environmentally specific. Organizations are increasingly aware of the potential for narrow purchasing policies in-source components or services from suppliers that may be legally non-compliant with environmental regulations or who themselves procure goods in an environmentally irresponsible way (Bowen et al, 2001). Some organizations have begun to guarantee more comprehensive product life-cycle considerations for consumers of their products. Once a supply chain begins to consider specialized processes, technologies, or complex performance standards for suppliers such as chemical avoidance, the level of knowledge exchange and relational investment begins to change. Moving from an efficiency-based GSCM strategy to a greater level of innovation or integration of environmental performance in supply chain and product design requires specialized environmental resources (Lenox & King, 2004). Keeping up-to-date with environmental legislation changes and training suppliers in environmentally relevant process changes requires more dedicated environmental resources, specialized personnel, and design. The development of such resources provides the conditions for an organization to shift from an efficiency-based to an innovation-based GSCM strategy. For products, the resources developed could be used to incorporate innovative environmental planning into specific product designs, characteristics, functionality, or life-cycle related activities (e.g., service, repair, and recycling). At the process level they could be deployed to develop environmentally robust methods and systems for the production, distribution, and use of products.

Closed-loop Strategies

Closed-loop strategies are a more recent type of GSCM strategy and represent the most complex and collaborative form of this type of activity. Often referred to in its simplest form as ‘reverse logistics,’ closing the loop involves the capture and recovery of materials for either re-manufacture (high-value) or recycling (low value) (Kocabasoglu et al, 2007). These materials can arise during production, as returned goods, post-use, and at end-of-life. The closed-loop strategy ties or integrates environmental performance to the whole supply chain. Very few examples of coordinated recycling or closed-loop activity in the supply chain currently exist however. Prominent examples include Kodak’s return and re-manufacture of its disposable cameras, Hewlett Packard’s retrieval of used printer cartridges, and BMW’s end-of-life vehicle requirements for suppliers (Guide et al, 2002). The motivation for a closed-loop strategy remains low for basic reasons of poor and distributed control over the reverse supply chain, lack of available infrastructure, and the inability of supply chains to believe that such activity is economically viable. Designing and successfully using a closed-loop strategy presents one of the most complex endeavours for a single organization to undertake within its supply chain (Richey et al, 2005). In its simplest form, ‘closing the loop’ may involve product take-back and reverse logistics implemented only in the retail portion of the supply chain. In more complex ‘closed-loop’ systems, used or obsolete products and waste are taken back by the producer and remanufactured or recycled rather than being disposed of to landfill. The closed-loop strategy, however, represents an approach that seamlessly integrates issues of economic, operational, and environmental performance. Organizations considering implementation of a closed-loop supply chain require high levels of control over the capture and return of used materials. Goods need to be managed for quality considerations and aggregation of collection and sorting activities allows for the creation of economies of scale. Such a high level of integration, coordination across partners, and socially complex knowledge requires years of development effort. Socially complex, collaborative relationships provide the basic foundation for a closed-loop supply chain strategy.

Directions for Future Research

There are many issues that require further scholarly research, which needs to be of ‘best practice’ case studies, and larger field studies that map the field and its progress. We also need to extend existing theories and principles of competitive advantage, operations management/SCM, resource-based view of the firm and others, to fully take account of mature GSCM practices and their integra-
tion into the mainstream of managerial work. Some suggested research areas and issues follow.

As raw material costs increase and environmental protection legislation becomes increasingly stringent, a focus on one firm’s green operational excellence is becoming the norm in organizations. To attain even greater cost savings from waste reduction, meet comprehensive social and environmental responsibility targets and find new products with smaller ecological footprints, firms are now extending their goals for environmental performance into their suppliers’ operations. This type of activity is an effective mechanism for firms to improve their record on corporate social responsibility, lower reputational risks, reduce wastes, and improve supply chain response-time to new environmental regulations.

As possible GSCM strategies become more complex and involve greater levels of relationship investment, their potential for competitive advantage also increases. Several supply chains have already developed systems of green supply chain management that may be many years ahead of or perhaps entirely out of reach for other supply chains (i.e., Hewlett Packard, Toyota, and Ben and Jerry’s ice cream). Other supply chains may only require the addition of environmental performance clauses into purchasing activities to adapt their supply chain to changing industry norms. More complex types of green supply chain strategy, however, offer increasing levels of economic, operational, and environmental performance.

At the supply chain level, organizations that involve suppliers and third parties in the greening process early—and well in advance of competitors—start a development path that may provide a sustained competitive advantage that lasts well into the future. For example, selecting and developing suppliers who retain unique capabilities in product take-back or re-processing or who exhibit high levels of environmental performance can provide a first-mover competitive advantage. Early selection of suppliers that are capable of delivering environmentally focused performance requirements will likely secure a pool of suppliers unavailable to other supply chains providing exclusive access to limited resources.

Firms wishing to rapidly release environmentally themed products and services, or make claims to such endeavours, cannot bypass the earlier phases of supply chain strategy development. Supply chain strategies that are designed for resource use efficiency and capture of all waste or by-products through the product life-cycle provide not just high levels of environmental performance but also the capacity to withstand approaching resource scarcity or legislative changes that affect and often re-define industries.

References
Are Business Schools a Business? . . . Universities?

by Dan R. Dalton, Indiana University

I suspect that most business school deans—and former ones as well—are occasionally asked whether a business school should be managed as a business. I also suspect that such questions arise from alumni, corporate partners who recruit business school students, and members of business school advisory boards, the membership of which usually includes successful members of the corporate and entrepreneurial business communities. Moreover, I suspect that similar conversations are common at university levels as well. Presidents of both public and private universities almost certainly have boards of trustees—or their equivalents. Also, virtually all universities will have a foundation—the development/fundraising arm of the university. Those, too, will have an oversight board that will enjoy a membership including successful business persons.

That business persons—broadly defined—are often importantly involved in university stewardship does not mean that these institutions ought to be managed like a business. Perhaps the literal, textbook answer to that question would be that universities are not businesses, but for me that is, at best, an incomplete answer.

A dictionary definition of “business” would include something on the following order: “a person, partnership, or corporation engaged in commerce, manufacturing, or a service” or “a profit-seeking enterprise or concern.” Maybe business schools and universities are not wholly captured by those descriptions, but I may be quibbling. I suspect that most observers would agree, however, that all non-governmental organizations—profit-seeking or otherwise—are enterprises. And, all enterprises are identical in at least one crucial element—the Resource-Mission-Evaluation-Repeat (RMER) cycle.

Resources - Mission - Evaluation - Repeat (RMER)

Consider a profit-seeking enterprise. The initial resources to launch this enterprise must emanate from somewhere—personal savings, banks, angel funding, venture capital, private equity, initial public offering (IPO), family and friends, a partnership agreement. Next, these resources—whatever their source—must be marshaled to meet the mission of the enterprise. This could be a novel or improved product or service. If so, this product/service will be sought/purchased. Now the users/consumers and the resource vendors, whatever their nature, will evaluate these transactions. Users/consumers will evaluate the quality of the product/service and its value proposition. Resources vendors have questions as well. Will they be repaid? Is the return on investment reasonable? Is there a promising exit strategy? If so, there is a repeat, another tranche of purchasing/funding. That funding could be derived from profits generated in the first period of the enterprise, or additional external funding. When the RMER cycle is broken, the enterprise fails. No resources, no enterprise. Poor attention to mission, no resources, no enterprise.

Perhaps the most interesting aspect of this cycle is its universal application. Non-profit enterprises, too, must have resources; those resources must be marshaled to meet the mission of the non-profit. Those mission-related activities will be evaluated. If the evaluation is satisfactory, the people/entities that provided the resources may, having considered alternatives for which there

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are many, provide another series of resources. And, the cycle continues.

**Reality Check: Reserves**

Another interesting element of all enterprises is their tendency to maintain reserves. Publicly-traded firms rarely distribute all of their “profits” to shareholders as dividends. Rather, those funds are generally retained (thus, “retained earnings”) for the proverbial rainy day. Even as those reserves grow, they are rarely distributed to shareholders. Instead, retained earnings are used to repurchase the enterprise’s own shares or for merger and acquisition (M&A) initiatives.

Non-profit enterprises, too, are uncomfortable operating without a reserve position. In fact, some of the highest-profile universities in the world have been criticized for their multi-billion dollar reserve positions, these usually garnered through their development activities. Critics have argued that universities apparently prefer to increase their tuitions/fees than invade these reserve accounts.

There is yet another model that embodies some of the same elements of RMER, but usually in a more macro-context and also more commonly for ongoing enterprises. It, too, may inform the “business” perspective for university management.

**Ends-Ways-Means (E-W-M)**

E-W-M is an enviable model of strategic leadership. Beyond that, it may importantly inform the critical relationships, sometimes trying, between presiding officers of large-scale enterprises—however broadly defined—and their stewards (e.g., boards of directors, trustees, overseers).

The basic foundation of E-W-M is that enterprises must—usually through their senior officers—establish the “ends” of the enterprise. What is the end-state? What is it that the enterprise is trying to accomplish? More critically, ends are normally operationalized as those objectives that simply must be accomplished for the enterprise to continue, succeed, and excel.

“Ways” constitutes the next logical step. Given the ends, what are the strategies by which those ends can be met? The “means” portion is fundamental. Are there resources to accomplish these ends? Can those resources be obtained? Can those resources be maintained? Notably, “means” is rather broadly based. Certainly, financial support is part of it, but so are technology and able people. Does the enterprise have the right people to achieve this? Is the enterprise training the right people to achieve this? Can the enterprise obtain/maintain retain the right people to do this?

**RMER, E-W-M, and the Eternal Struggle between Management and Stewards**

If there were an oversight group during the building of the great pyramid, I would be willing to bet that the management/builders thought that the oversight group was intrusive, hopelessly naïve, and did not understand what the management/builders were trying to accomplish. By contrast, the oversight group probably thought that the management/builders were fast and loose, inattentive to time and cost guidelines, and hopelessly out of touch with the expectations of the kings/queens/investors/whomever. My confidence in the broad brush strokes of that scenario is based on having—as have many of you—been on both sides of that continuum. Management and stewards—both broadly defined—often do have rather different perspectives on the nature of their coincident relationship. Some attention to the basic foundations REMR and E-W-M, well executed, can mitigate these tendencies.

**An Able Board of Trustees Meets an Able University President**

Consider a hypothetical board of trustees, comprised of extraordinary people, but with no prior expertise, experience, or reputation in the leadership or stewardship of an institution of higher education. The university president, hypothetical as well, has world-class credentials, but leadership or stewardship of large-scale publicly-traded firms is not among them. Importantly, both parties—the president and the board of trustees—are truly in alignment and, on this point, there is no debate. They are responsible for a very, very good university, and they do, singly and jointly, want it to be even better.

Universities, however, are complicated enterprises. A large university could be comprised of schools of architecture, business, computer science, education, engineering, law, medicine, music, public administration, and arts and sciences (within which there might be 50-75 disciplines and sub-disciplines—e.g., art, anthropology, astronomy, biology, chemistry, criminal justice, economics, gender studies, geology, history, humanities, international studies, languages, literature, physics, psychology, religious studies, sociology, telecommunications, theater and drama). Also, most of these disciplines would be taught at the undergraduate, master’s, and Ph.D. levels.

Beyond that, a large university is essentially a small city with on-campus housing capacity for thousands of students and other facilities for their support. There is extensive plant and equipment. All of this could be multiplied by some factor because many universities are multi-site. A major university probably hosts 30,000 to 50,000 students and another several thousand support personnel.

While this description of the scale of a contemporary university is woefully incomplete, a basic question persists: How do the president and board of trustees manage and improve all of these dimensions? The answer, distressing for some, is that they do not. Moreover, they cannot. It is manifestly impossible and any attempt to do so by the president and board of trustees is a recipe for disaster. Beyond that, such attempts are the grist of the mill of timeless frustration between “management” and stewards with each accusing the other of lack of understanding, misunderstanding, and micro-managing.

**A Bit—No, A Lot—of Focus**

An effective relationship between the university president and the board of trustees—under E-W-M—requires focus.
As noted, the president's position does not include the day-to-day management of the enterprise—all of the students, facilities, functions. Elements of that sort are also not included in the trustee's responsibilities. Literally thousands of very able people toil in the vineyards of the major university who are directly tasked with the daily oversight of these dimensions. Rather, it is the ends of the university that must be identified and obsessively managed. Instead of the exhausting and often frustrating hours of announcements, presentations, and similarly dreary reporting, consider a board of trustees which requests that the president provide the three initiatives, "ends," that are absolutely fundamental to the future success of the enterprise. I rely on three for the sake of discussion, it could certainly be four, maybe five, but it is not 14.

At the next meeting of the trustees, the president sets three such priorities: 1) the quality of the matriculating undergraduate class; 2) increasing the development/fundraising activities of the university; and, 3) a world-class intercollegiate badminton team. The president explains that the rationale for the first priority is his or her appreciation of an enduring input-transformation-output model in which no high-value-added transformation can take place without the best possible inputs. The basis for the second priority is that, while there may be some uncertainty about what the future directions of higher education may be, there is no question that the university must have a means to fund them. The rationale for the third priority requires no justification. I chose it to illustrate that universities may, in fact, present with different priorities. In some case, there will be priorities with which not all constituencies would agree.

In any case, for the sake of argument, suppose that the trustees agree with these priorities and their centrality to the future of the enterprise. What can they now reasonably expect with regard to future trustee meetings? It is absolutely fair to expect an update on these priorities, activities relevant to them, and progress towards them. Not only is it not micro-managing, there should now be few misunderstandings as the president and the trustees are of similar minds as regards these priorities.

Given that, the trustees could reasonably be expected to be briefed on the "Ws" and "Ms" of E-W-M. What are our actions towards these ends? What is the state of our resources marshaled towards these ends? Using the silly example of badminton, what would the trustees expect to hear in subsequent meetings? Who/what is our leadership on this initiative? Where is the best badminton in the world played? By whom? Are we recruiting there? For players? For coaches? What does a world-class badminton facility look like? Do we have architects working on the project? Scholarships in place/ongoing? Who are the constituencies of this activity? Are we in touch with them? Are they supporting us?

Even for this silly example, these are fair questions. They are not intrusive. They are on point. And, they should be subject to routine reporting. For the more substantive priorities, the type of questions remain essentially the same; obviously, the stakes are decidedly different.

Another Reality Check for Focus

For the following scenario, we will assume that some corporation produces TanMerits (a hypothetical product) and also the name of the firm, which enjoys an enviable market share and reasonable—but not exceptional—returns. The CEO of this large-scale firm has planned three meetings. One is with the CEO's senior executive team with responsibility for production, another with marketing/sales, and the final meeting with finance.

The Production Team

The CEO explains to the production team that she expects this very able group to increase its production efficiencies. After a week or so, this group provides a report of the major findings and suggestions: (1) a reduction in the number of sizes in which TanMerits are available; (2) a reduction in the number of colors in which TanMerits are available; and (3) an increase in the inventory of the raw materials necessary to produce TanMerits. The production team suggests that these changes will reduce its costs per product. Moreover, and not incidentally, these changes will importantly inform future production bonuses for the team.

Marketing/Sales Team

After meeting with the CEO, the marketing/sales team also provides a report. It notes several elements which, in concert, will positively impact sales levels for TanMerits: (1) an increase in the number of sizes in which TanMerits is available; (2) an increase in the number of colors for which TanMerits is available; (3) an increase in the finished-product inventory for TanMerits; and (4) a reduction in the down payment now required for the purchase of TanMerits and an extension of the payback period. The marketing/sales team suggests that these changes will increase the sales of TanMerits, and will also positively inform marketing/sales team bonuses.

Finance Team

The finance team also provides a report for the CEO. It highlights a number of changes that, in concert, will positively impact its activities: (1) reduce the raw material inventory; (2) reduce the finished product inventory; (3) increase the down payment now required for the purchase of TanMerits; and (4) decrease the payback period. Here again, and unsurprisingly, this team suggests that these changes will improve the finance function and will positively inform finance personnel bonuses.

Back to the CEO

The reports are in. Which unit is correct? From the perspective of the individual units, they all are correct in that the acceptance of their suggestions would result in lower costs at the respective unit level. The irony, of course, is that the CEO recognizes that the individual unit reports are diametrically different on virtually all suggested dimensions—more
mentoring is of critical importance to our profession. Our success depends on theirs. They “need to see and experience...the life of a research endeavor from conception to completion. [They] cannot do it alone.”

In the “From the Bookshelf” feature column, Beheruz Sethna of the University of West Georgia reviews Pankaj Ghemawat’s book, *Redefining Global Strategy*, in which Ghemawat takes issue with Thomas Friedman’s contention that the world is flat. Dr. Sethna describes Friedman’s book as “a good wake-up call” to the Americans and other Western countries, and Ghemawat’s book as “an excellent strategic guide book for corporations....”

We hope you will enjoy this issue of *Decision Line* and look forward to your suggestions and comments. Happy reading!
Wanting Doctoral Students to Be Successful Researchers (Throughout Their Academic Careers)

by Xenophon Koufteros, Texas A&M University, and George Marcoulides, University of California- Riverside

It is commonly acknowledged that a number of doctoral students will never complete their dissertation work or ever begin publishing in scholarly outlets. It is also commonly accepted that many doctoral students may graduate but will never make it through either a midterm retention review or through a tenure and promotion review process. It is also common knowledge that a fair number of those individuals that eventually make tenure will cease publishing almost immediately thereafter. What motivates one to begin publishing and to continue to publish throughout their academic career? What factors might actually explain the research productivity differentials that are often observed between individuals that have otherwise relatively similar cognitive abilities, skills, time, and other necessary resources available?

The focus of this commentary is on research, considered by many to be one of the most critical and valued aspects of a successful academic life. Since failure to produce a given “number” and “type” of published scholarly articles usually spells disaster within the academia, an examination of what motivational factors drive one to conduct research begs our attention. And although in many departments there might be a so-called “list of approved journals,” in other departments any such list is either frowned on or looked upon with suspicion. Complicating matters is that while everybody seems to recognize that the “number” of published manuscripts is important, nobody seems willing to admit what this magical number is ... especially administrators! So, recently hired and fresh doctoral students regularly end up working in a department where it is not always clear what it takes to successfully make it through the tenure and promotion process.

While working on research and writing and preparing papers for publication may be second nature to some academics, many find this endeavor quite challenging and sometimes even intimidating—perhaps because there is much uncertainty connected with this endeavor in the first place. Is my chosen topic current and interesting enough? Is the conceptual development outlined valid and well supported? Is my research design and research methodology appropriate to address the type of questions posed in the study? Is the data analysis correct and are the conclusions accurate and relevant? What is my contribution to the theoretical body of knowledge? What are my chances of getting this paper accepted in a top-tier scholarly outlet? How is publishing or failing to publish this manuscript going to affect my current and likely future employment opportunities?

It is clear that each and every research project and related manuscript in which one invests time has definite costs but not always positive outcomes. The task is challenging indeed when one also considers that acceptance rates at most top-tier or aspiring-to-be-top-tier journals generally hover around 8 to 10 percent. If one also then considers that a sizable number of the accepted/published papers are often written by people with multiple hits, there appears to be very limited space available for the “new kids on the block.”
Accordingly, it would seem that with all the potential obstacles, there must be something different or special that drives some researches to succeed and others to just give up along the way. If we suppose that admittance to a doctoral program is at least partly dependent upon cognitive ability (as exhibited either through common standardized tests and/or previous college grade point average), and we also assume that students in any given doctoral program generally receive similar kinds of training, then what sets some individuals apart? What are the driving forces toward succeeding in this academic world? Unfortunately, it would appear that there are myriad possible behavioral factors that can be considered as likely determinants. Interestingly, there are just as many theoretical perspectives that have been suggested within the literature as explanations of this aspect of human behavior. For example, some theorists have suggested that the powerful determinants are simply those related to intrinsic and extrinsic motivational factors. In contrast, social cognitive theorists would suggest that the most powerful explanatory variable of any human behavior is simply self-efficacy (Graham & Weiner, 1996). Given this rather dogmatic perspective on human behavior, it would appear that examining the construct of self-efficacy, its consequences, its antecedents, and its correlates may indeed be quite pertinent towards understanding the propensity of individuals to engage in publishing papers, a behavioral choice. How much effort an individual puts into this behavioral choice and how persistent he/she is depends to a great extent on the sense of efficacy one holds (Bandura, 1977).

**Self-Efficacy, Its Consequences and Antecedents**

According to Wood and Bandura (1989), “Self-efficacy refers to beliefs in one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands” (p. 408). These beliefs have powerful consequential effects on behavior (Figure 1). It is partly based on these beliefs about capability that individuals select which courses of action they will take (behavioral choice), how much effort they put into it, and how persistent and resilient they will prove to be in the face of adversity and obstacles. Individuals with a strong sense of self-efficacy are more prone to approach difficult tasks in a given domain (such as going through the whole endeavor of publishing a paper) as challenges to be mastered rather than dangers to be avoided. Such individuals are more likely to recover with confidence after a failure, a failure which they are likely to attribute to lack of effort and insufficient skills rather than incompetence. Such individuals set challenging goals and maintain a strong commitment toward those goals.

Self-efficacy expectations are said to vary on several dimensions, but three of them are considered central: magnitude, generality, and strength. The efficacy expectations of different individuals vary in magnitude in the sense that some individuals may be very confident in coping only with simple tasks, while others can...
be confident with the most challenging tasks that require taxing performances. Some individuals develop a sense of efficacy that extends beyond the boundaries of situations they faced in the past and thus can generalize their mastery capabilities. For example, a doctoral student who received statistical training using the Statistical Analysis System (SAS) may feel confident that he/she can handle any of the other available general statistical packages. Other individuals, however, hold a more restricted sense of efficacy. Perhaps a student may be confident to only deal with SAS routines and cannot generalize his/her knowledge to other available software packages. Self-efficacy expectations vary also in strength. Individuals who hold strong expectations of mastery are more inclined to persevere and exert extended effort even in the face of adversity, while individuals with weak expectations often simply succumb to disconfirming experiences.

How do individuals actually build their sense of self-efficacy? What are the primary informational sources of self-efficacy? The extant self-efficacy literature generally describes four such sources (Bandura, 1977; Schunk, 1991; Pajares, 2002): enactive mastery, vicarious experience, verbal persuasion, and emotional arousal. The literature is very consistent in positing that enactive mastery is the most influential source of efficacy beliefs (e.g., Bandura, 1986). Individuals assess the effects of their own actions and interpretations of these effects can assist them to create their sense of efficacy. When behavioral outcomes are positive, the individual feels more confident about his/her ability to handle tasks (especially if the individual attributes particular success to his/her behavior). On the contrary, when outcomes are negative this may lead to lower levels of self-efficacy (Bandura, 1977). Enactive mastery suggests that individuals learn best from their own experiences. It is of utmost importance then that doctoral students engage in research activities and publication efforts from the early stages of their development. This is of course predicated on receiving appropriate research skills, exposure to literature, and availability of appropriate and necessary resources. Mentorship and guidance are also critical success factors, but to derive the strongest sense of efficacy one has to try it on his/her own. Nothing short of a personal engagement will do it—in this case, lead to academic success. “Nothing short of riding a bike will teach one to ride a bike.” Similarly, if one is to feel confident about research activities and publishing, one has to actually engage in research, not just read about research. What is also critical is the active involvement of doctoral students across all phases of a research endeavor.

Doctoral students need to play an active participatory role as it pertains to conceptualizing an idea for a paper, conducting a literature review, building a theory section, working on a research design and methodology, collecting data, analyzing data, and interpreting findings. Typically, most doctoral students work with faculty on research projects before they begin their dissertation work. However, such involvement tends to be fragmented and thus incomplete. A student may be asked to carry out a literature review or conduct some of the statistical analysis but does not specifically see how everything fits together. Rarely is a student fully engaged in all aspects of doing research until he/she is called to do his/her dissertation. Immersing students in all aspects of research at an early stage provides not only invaluable lessons that can be generalized but also it gives them a feeling that they are capable of doing research on their own. Assuming that a doctoral student has a mentor he/she can rely on for guidance and inspiration, enactive mastery can communicate feelings of confidence and capability. The process of engaging students across all aspects of research at an early stage also generates valuable collateral feedback for both the student and the respective faculty. The student can see what it takes to do research and he/she may just decide that research is not what he/she would want to do in their professional life. Doing research consumes a significant portion of an individual’s academic life, and one does not want to commit to something that they do not particularly enjoy. Waiting until dissertation time to find out that a student does not have the drive and interest to do research is not only costly, but potentially perilous.

It would be equally dangerous for doctoral students to be commissioned to work on research alone without a record of several vicarious experiences. Although research may come easy for some, observing how a productive and well-respected professor conducts research provides an excellent learning opportunity. Through vicarious experiences (Bandura, 1977), individuals acquire information about their capabilities by observing how others perform. This is usually achieved through modeling. Being a result of social comparison, vicarious experiences tend to be however less dependable sources of information of one’s capabilities (Bandura, 1977). Observing others succeed (especially in challenging situations) conveys positive information and may lead one to adopt similar behaviors (Schunk, 1991). “If others can do it, I can do it.” On the other hand, observing others fail lowers the sense of efficacy and may lead one to abandon efforts to work on research-related activities. “If the model (professor or peer) fails, then how is it possible for me to succeed?” Vicarious experiences can be influential but they can be short lived once personal experiences are derived. In fact, vicarious effects can be reinforced or negated through personal experience. If an individual tries to work on a manuscript and is successful in these efforts, vicarious effects can be reinforced. If the individual fails, then any increases in self-efficacy through vicarious learning can be negated. Vicarious experiences are invaluable when individuals are uncertain about their own capabilities and they have limited or no prior experience.

Doctoral students also need to repeatedly hear words of encouragement. Verbal persuasion (Bandura, 1977) is one of the most common approaches that can influence human behavior. It owes
its relative popularity to its ease, availability, and is, of course, devoid of cost. Through suggestion, individuals are led to believe that they too can successfully cope with challenging tasks. Obviously, an individual coping with a task will have to possess commensurable skills and resources for the task if they are to succeed. Verbal persuasion and encouragement can influence an individual to mobilize the skills and resources they have at their disposal. Persuaders, however, have to assure that success is attainable in accordance with given skills, resources, available time, and individual capabilities. Encouraging students to first submit papers to regional and national conferences and then on to journals builds their self-efficacy and resolve. However, just as positive persuasions can boost an individual’s confidence level, negative appraisals can also inevitably quash self-efficacy (Bandura, 1986). For this reason it is important that any feedback provided to doctoral students be related in a constructive manner.

Emotional arousal (Bandura, 1977) is the last of the four sources of information that can affect self-efficacy perceptions. Individuals can gauge their confidence by observing their physiological state when they engage or contemplate engaging in a given behavior. For example, anxiety, agitation, and stress may communicate lower levels of ability to cope with a given task. These cues can sometimes be strong and rather influential to behavioral choices. Emotional arousal derives from many sources, some of which can be personal while others may be environmental. For example, an individual lacking sufficient skills, knowledge, time, and other necessary resources to cope with a given behavior and its demands may experience elevated levels of anxiety and stress, which can then have debilitating effects on the beliefs of adequacy one holds of himself or herself. Mentors and the faculty at large have to ensure that doctoral students are given the resources and skills necessary for completing the job. If necessary, doctoral students may have to be more proactive and ask for help.

Correlates—Outcome Expectations and Goal-Setting

Accomplishing challenging tasks requires more than a strong sense of capability. Individuals perceiving themselves as being capable cannot always accomplish every task attempted (especially difficult ones), particularly when it requires the presence of domain specific skills and knowledge. However, self-perceptions can help an individual decide what to do with the knowledge and skills he/she already possesses.

Behavioral choice is also predicated on outcome expectancies (Bandura, 1977) and in particular, the certainty with which a given outcome can indeed be obtained and the value that the individual attaches to this prospective outcome. Expectancy-value theories suggest that individuals are not motivated to attempt the impossible or unattainable. A challenging but yet attractive goal (how much do they value the goal?) is what inspires and motivates people. So, what is the role of faculty in this scenario? First and foremost, professors have to communicate to doctoral students the value of doing research. Professors also have to instill in doctoral students the importance and value of publishing research in academic outlets that can inevitably prove to be instrumental to their academic career. Clearly, not all published papers count the same. Experienced professors can also assess the likelihood of successfully submitting a particular manuscript with a specific journal.

Bandura (1988) suggests that goal-setting (and the self-evaluative reactions that follow) can stimulate motivation and subsequent behavioral choices. A doctoral student who sets a goal or is given a target to try and publish a manuscript in a given journal may experience an initial sense of self-efficacy for attaining the goal. Setting a goal, however, demands more than just a certain level of commitment and subsequent behavior (such as reviewing additional literature and learning a new statistical methodology). Self-efficacy is substantiated when progress is made toward the goal, which conveys that an individual is actually mastering the task.

Four major properties characterize goal-setting (Schunk, 1991): proximity, specificity, difficulty, and commitment. Because progress for close (i.e., proximal) and specific goals is comparatively easier to evaluate, proximal and specific goals promote self-efficacy and motivation (Schunk, 1991). Reaching relatively easy goals may reflect some sense of capability, but meeting or exceeding challenging goals may be illustrative of more effective mastery of skills and elevated perception of self-efficacy, which ultimately may affect behavioral choices (e.g., it may lead one to attempt working on even more challenging projects). As is true in most kinds of settings, a lack of commitment can prove disastrous in an academic setting. An individual who is not committed is likely not to exert requisite effort and perseverance, even when he/she thinks that the goal is noble and critical to professional success.

Feedback

Feedback is necessary to communicate whether goals have been met (Schunk, 1991). Providing timely and constructive feedback raises a student’s self-efficacy and perhaps even leads to more effort. Individuals go through a self-evaluative process, which involves necessarily a comparison between actual performance and goals. Positive discrepancies may lead individuals to exert more effort, while negative discrepancies create dissatisfaction that can conceivably motivate corrective behavioral changes. Students make behavioral choices and exert various levels of effort towards these choices. Some choices will prove to be successful and rewarding, while others will likely fail. Some rewards will ultimately be deemed valuable, while others may be considered paltry. Individuals learn that valuable rewards are correlated with certain past choices and this may subsequently affect their future behavioral choices (Bandura, 1977). Bandura (1986) also notes that attributional factors such as the amount
of effort expended and judgments of task difficulty influence performance through self-efficacy. Other things being equal, a doctoral student who succeeds in publishing through massive effort is likely to consider him/her somewhat less capable than one who can publish with relative ease. Thus attributional feedback is posited to affect self-efficacy, motivation, and performance. The timing of feedback is equally important as early success may reflect high learning ability, which can ultimately affect efficacy and subsequent behavioral choices.

Other Individual and Environmental Factors
Self-efficacy was discussed above as an important explanatory variable of human behavior. Such a perspective, however, certainly does not imply that self-efficacy is the sole predictor of a particular behavior. As stated earlier and shown in Figure 1, goal setting and outcome expectations can also play a central role. Indeed, there can be quite a plethora of individual characteristics that can prove to be also quite influential. For example, characteristics such as skills, knowledge, cognitive ability, personality, and goal orientation are just a few amongst a number of other important predictors of behavior. In addition, contextual factors such as task difficulty, resources, and time may have a significant moderating impact.

Conclusion
Mitchell (2007) provides an excellent essay on the requirements of academic life and the general changes that are needed in business schools to improve doctoral education. The path is not easy and it takes a collaborative effort by multiple stakeholders to effect positive change. Doctoral students should do their part and examine early enough whether the life of an academician really suits them. Research is what many academicians do most of the time. One must clearly enjoy doing research in order to do good research. It is also important that doctoral students do not simply judge their efficacy to conduct research based solely on the few “snapshots” obtained while assisting their mentor or other professors. Observing faculty conduct research and helping out is necessary, especially when doctoral students first enter a doctoral program. But as discussed above, enactive mastery (in other words, actually doing research yourself) has been the most instrumental factor for self-efficacy beliefs across a variety of situations. One has to do research themselves in order to find out whether they like it. To get a more complete picture as to what research entails, one really needs a “video camera” and not just a “still camera.” Doctoral students need to see and experience, as much as possible, the life of a research endeavor from conception to completion. Of course, doctoral students cannot do it alone. They must have a supportive mentor who can serve as a role model guiding them through all the hurdles that lie ahead. There are plenty.

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Web Resources
Extensive resources on Self-Efficacy reside at Emory University:
http://www.emory.edu/EDUCATION/mfp/self-efficacy.html

References


In the following article, Beheruz Sethna reviews two books by authors Pankaj Ghemawat and Thomas Friedman, offering differing opinions about whether the Earth is flat. Dr. Ghemawat is the Rubiralta Professor of Global Strategy at the University of Navarra Iese Business School (Barcelona) and also the Tampo Professor (on leave) at the Harvard Business School. Mr. Friedman is a foreign affairs columnist for *The New York Times* and has won the Pulitzer Prize on three occasions. His book received *The Financial Times* and Goldman Sachs “Business Book of the Year” Award.

**Ghemawat v. Friedman: Is the World Flat?**

by Beheruz N. Sethna, University of West Georgia

Is the world flat as Tom Friedman purportedly claims in *The World Is Flat: A Brief History of the Twenty-First Century* (and later versions), or is it not, as Pankaj Ghemawat says in his book *Redefining Global Strategy*?

The answer to the controversy (if there is one), in the opinion of this author, lies in two “ing”s:

- “ing”—as in the present continuous tense, and
- Marketing—as in the field of Marketing—perhaps not in the strictest sense of the AMA definition, but in part of the connotation of the word.

If this has sufficiently piqued your curiosity, read on.

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**Redefining Global Strategy: Crossing Borders in a World Where Differences Still Matter**

Pankaj Ghemawat
Hardcover 288 pages, $29.95
http://www.hbsp.harvard.edu/

**The World Is Flat 3.0: A Brief History of the Twenty-first Century**

Thomas L. Friedman
Macmillan/Picador Press, 2007 (and earlier editions)
Paperback 672 pages, $16
http://us.macmillan.com/Picador.aspx

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An Imperfect, Inadequate Summary of Each Book

Given that Friedman’s book is approximately 470 pages long (I have concentrated largely on his V 1.0 book, but much of the following does not appreciably change in the later versions, and there is a reason for that choice that will be made clear later) and Ghemawat’s book is about half that length, any article that purports to summarize those books must necessarily confess to a limitation of being an imperfect or inadequate summary. I do so up front!

Tom Friedman’s book The World Is Flat: A Brief History of the Twenty-First Century became a best-selling book shortly after it was first published in 2005, and later “releases” followed in 2006 and 2007. Tom Friedman listed 10 flattening influences which, in essentially a 13- to 14-year period, flattened (or leveled) the international playing field. These include:

1. the fall of the Berlin Wall and the walls of regulation in some countries (primarily China and India),
2. the advent of Netscape and other browsers that allowed people from all walks of life to have easy access to the World Wide Web,
3. workflow software that enabled “your computer to talk with my computer,”
4. open sourcing / open source software,
5. outsourcing,
6. off-shoring,
7. supply chaining,
8. in-sourcing,
9. in-forming through the powerful search engines such as Google to which we have access, and
10. “steroids” such as PDAs, cell phones, and the like, which make all of the preceding flatteners work faster.

All of these 10 flattening influences have done much to “flatten” the world.

A few notes on these flatteners: The date on the first flattener—the fall of the Berlin Wall—occurred at the end of 1989. All of the others followed incredibly rapidly in a span of approximately 13 to 14 years! All of these flatteners occurred in a blink of an eye constituted the first of what Friedman calls the Triple Convergence.

The next (and related) convergence occurred when “the convergence of the ten flatteners begat the convergence of a set of business practices and skills that would get the most out of the flat world”—also of professions with different skill sets. This meant that a new business model was required to succeed. Instead of collaborating vertically (the top-down method of collaboration, where innovation comes from the top), businesses needed to begin collaborating horizontally—where companies and people collaborate with other departments or companies to add value creation or innovation. And finally, the third element of the triple convergence occurred with the advent of China, India, and other countries into this new world, almost 3 billion people who had been left out of the business climate were now in. So, it is a “triple convergence” that we in America have to deal with—a convergence of 10 flatteners in the blink of an eye, of many diverse skill sets and professions, and of three billion new people in the global market.

Friedman then develops this theme to talk of how we can work towards making our careers and, more significantly, our children, “untouchable” in this new world, and suggests that the only way to do so is to learn how to learn. He further talks of the impact of the flattening world in terms of some home truths (this is my phrase; he calls them “Dirty Little Secrets”) about the gaps that we face: the “Numbers, Ambition, and Education Gaps.” To my mind, Friedman’s book sends important messages to those in the U.S. and in some other Western countries about the impact of what is happening on the other side of the world. Such events “on the other side of the world” were less likely to impact lives of Americans 20 years ago than they are today.

In his book Redefining Global Strategy, Harvard Business School professor Pankaj Ghemawat states that the world is not flat. As the HBS website http://hbswk. hbs.edu/item/5719.html states:

With apologies to Thomas Friedman, managers who believe the hype of a flat world do so at their own risk, says HBS professor Pankaj Ghemawat. National borders still matter a lot for business strategists. While identifying similarities from one place to the next is essential, effective cross-border strategies will take careful stock of differences as well.

It asks us to think of the world as partly globalized, or “semiglobalized.” Ghemawat’s book provides an excellent framework for businesses to plan their own global strategy. His approach is called “CAGE”: the analysis of the cultural, administrative, geographic, and economic dimensions of different countries which can help businesses examine barriers to expanding in these countries and how to overcome them, or at least reduce their impact. He also proposes a scorecard that will help businesses with a “comprehensive, rigorous basis for tracking value creation through cross-border moves.”

In his book, Ghemawat makes a significant claim about globalization versus semiglobalization. He uses Theodore Levitt’s quote in “The Globalization of Markets” (1983) to represent the globalization approach:

The multinational corporation operates in a number of countries, and adjusts its products and processes in each, at high relative cost. The global corporation operates with resolute constancy…it sells the same things in the same way everywhere.

In sharp contrast, Ghemawat states that differences between countries are larger than generally acknowledged. As a result, strategies that presume complete global integration tend to place far too much emphasis on international standardization and scalar expansion. While it is, of course, important to take advantage of similarities across borders, it is also critical to address differences. In the near and medium term, effective cross-border strategies will reckon with both, that is, with the reality that I call semiglobalization.
He provides compelling data to back up his contention, and points out that, in spite of the rhetoric that investment knows no boundaries and much is being by companies outside their home countries, “the ratio of FDI (Foreign Direct Investment) to overall fixed capital formation has been less than 10 percent for each of the last three years for which data are available (2003-2005)” (emphasis added). Further, he presents data on several other dimensions as well, such as the international component of total telephone calling minutes, immigrants as a percentage of population, foreign students as a percentage of total OECD university enrollment, percentage of research papers with a cross-border component, international component of U.S. private giving, and international tourist arrivals as a percentage of total tourist arrivals, and notes that all of these are less than 10 percent. Patents of OECD residents involving international cooperation and the international component of U.S. investors’ stock holdings are slightly higher than 10 percent but lower than 20 percent. Trade, global exports of merchandise and nonfactor services and percentage of global GDP is under 30 percent, the only dimension he studied that exceeds 20 percent. The average of these 10 dimensions is close to 10 percent, which leads him to conclude that it is far more accurate and appropriate to think of the world as semiglobalized, because “most types of economic activity that can be conducted either within or across borders are still quite localized by country.”

Further, Ghemawat makes the case that not all the trends are increasing. For example, “rough calculations suggest that the fraction of the world’s population accounted for by long-term international immigrants was slightly higher in 1900—the high-water mark of an earlier era of migration—than in 2005.” However, he does acknowledge unprecedented growth in international trade as a percentage of GDP—unprecedented, “but hardly apocalyptic,” he says.

Ghemawat examines the case study of Coke, which appears, in his opinion, to have taken the globalization message too far. Coke used global strategy of the sort that Ted Levitt might have recommended with an “unprecedented amount of centralization and standardization. Divisions were consolidated, and regional groups headquartered in Atlanta. Consumer research, creative services, TV commercials, and most promotions…” were standardized. “The problems with that strategy took a while to surface, but by the millennium, Coke was adrift in a sea of troubles.” He makes the claim that Coke has only recently started to regain its bearings with a strategy that understands and respects inter-country differences. This is closer to the semiglobalized and CAGE strategy that Ghemawat advocates—in part:

Determine which of a range of international differences—cultural, administrative, geographic, and economic—are key in your industry, and look for differences in differences: categorize foreign countries into those that are close to your home base along the key dimensions versus those that are far.

Comparison

In my opinion, the “World Is Flat” vs. “World Is not Flat” difference is a straw man.

First of all, the title of his book notwithstanding, I don’t for a moment believe that the world is flat (i.e., that there is no impact of national borders). No serious reader of his book would claim that Friedman believes that the world truly is flat—I don’t mean physically flat; I mean that I do not believe that he thinks that no differences exist between countries or that no barriers exist between them.

Friedman refers to the title of the book as coming from a conversation he had with Nandan Nilekani, then the CEO of Infosys, an Indian software company. In this context, it implies that the world is level in terms of international competition, as in a level playing field in which competitors have equal opportunities to succeed. Again, let’s look deeper than the title. Friedman talks of the conversation he had in India:

At one point, summing up the implications of all this, Nilekani uttered a phrase that rang in my ear. He said to me, ‘Tom, the playing field is being leveled.’ He meant that countries like India are now able to compete for global knowledge work as never before…. As I left the Infosys campus that evening and bounced along the road back to Bangalore, I kept chewing on that phrase: ‘The playing field is being leveled.’ What Nandan is saying I thought, is that the playing field is being flattened … Flattened? Flattened? My God, he’s telling me the world is flat!

Further to this point, Friedman says that, after this pivotal conversation, he wrote down “The world is flat” in his notebook. However, in the very next sentence, he states, “As soon as I wrote them, I realized that this was the underlying message of everything that I had seen and heard in Bangalore in two weeks of filming. The global competitive playing field was being leveled. The world was being flattened.”

Note that in the conversation with Friedman (which led to the title of the book), Nilikani uses the present continuous tense: “being leveled” or “being flattened.” Even Friedman talks of the present continuous tense in the last line of the preceding quote. But, in the title, he leaped from the present continuous to the present tense—“The World Is Flat.” I’m not being critical; speaking as a marketing man, a title that reads “The World Is Being Leveled” has considerably less cachet than “The World Is Flat.” The point is let us recognize it for what it is—a marketing phrase and not let it detract from the excellent quality of the book, any more than we would let the quality of a great car be reduced by a commercial that implies that by buying it, you will attract more members of the opposite gender than you know what to do with!

As an educator, I have used the work of Friedman and others to issue a wake-up call of my own to audiences ranging from community leaders to middle-school students and their parents and teachers. My talks and PowerPoint slides refer to present continuous tense—the flattening world, rather than the flat world. Again, in spite of his title, I don’t believe that Friedman himself believes that the
world is flat. He has traveled in India and China—he knows of the many barriers, problems, and issues that those countries have to overcome to reach their potential. I interpret his work to be saying that the flatteners and triple convergence described earlier helped make the world more of a level playing field. I do not believe that these changes, and the profound impact of them, are seriously in question.

Ghemawat’s book points out—very accurately and legitimately—barriers to the flat world concept. He states, and I agree, that large differences do exist when one crosses international borders. He provides strategies for corporations in the face of: “Adaptation strategies” that must be taken into account as corporations cross borders, “aggregation strategies” that allow corporations to provide some simplification by grouping countries along some similar characteristics, and “arbitrage strategies” that help corporations “exploit” some country differences to their advantage. The message I get from Ghemawat’s excellent book is that there continue to exist very important country differences that corporations ignore at their peril. I read his book as more of a corporate guidebook of how to analyze opportunities for growth (in value rather than just volume) for companies seeking to succeed in the new “semiglobalized” world.

This is what Friedman says: “I am not a business writer and this is not a how-to-succeed-in-business book.” The point that I make again, is that these are very different books—both excellent ones. However, a comparison would not be terribly meaningful in my opinion. It’s something akin to comparing a book that exhorts us to be more service oriented to our fellow human beings to an operating manual for the Peace Corps. This comparison is not a great one but I hope it conveys the idea.

Having said that, however, Friedman does offer some business pointers in his chapter entitled, “How Companies Cope.” He offers seven “rules” that are not really in conflict with Ghemawat’s concept of the semiglobalized world. In fact (though not in the same chapter), Friedman has a section entitled: “Culture Matters: Glocalization” (not a typographical error). In that chapter and section, Friedman repeatedly makes the point that countries are different, and the culture of countries makes a very significant difference. The more outward looking the culture is (open to foreign influences and ideas), the more “glocalized” it is, the greater its advantage in the flat(tening) world. He further makes the point that geography and natural resources can make a difference. Countries that cannot simply get by with counting on their natural resources are more likely as a matter of survival to be open to new and outside ideas. I’m not sure that he is correct in some cases, but he does effectively make the point in the case of Bahrain which was one of the first Arab countries to discover oil and also to run out of oil; but correspondingly, was the first Arab country to hold elections in which women could vote. On the other hand, Saudi Arabia can live off its oil and so does not need to relate to other cultures. Another impressive point Friedman makes is that not only does culture matter, but culture can change—for example, Japan, Germany, Muslim Spain (in times past), and Dubai.

Note that this approach by Friedman is not inconsistent with at least some parts of Ghemawat’s CAGE philosophy.

Early in his book, Friedman talks of Globalization 1.0, which involved countries globalizing; Globalization 2.0, which was companies globalizing; and Globalization 3.0, which talks of individuals competing and collaborating. This phase is empowered by technology and software and, in turn, empowers a much more diverse set of people all over the world.

For a moment, let us draw on the expertise of a couple of other sources. The first of these is Seven Revolutions: Looking Out to the Year 2025…and the major forces shaping the world. “The Center for Strategic and International Studies (CSIS) is a nonpartisan think tank based in Washington, D.C. Its mission is to provide world leaders with strategic insights on—and policy solutions to—current and emerging global challenges. Seven

Revolutions is directed by Erik R. Peterson, senior vice president, William A. Schreyer Chair in Global Analysis, and director of the Global Strategy Institute at the Center for Strategic and International Studies” (http://www.7revs.org/).

Peterson states that “the benefits of this level of integration apply to developed and developing country alike. In fact, the United Nations Development Program maintains that developing countries have achieved in 30 years what the industrialized nations took 100 years to accomplish.” These benefits are particularly felt in more outward-looking countries. “A recent World Bank report documents how those countries that opened their economies—the ‘new globalizers’—experienced a 5 percent increase per year in per capita GDP relative to non-globalizers....”

However, we must recognize that global inequities persist. He states that “2.8 billion (people) live on less than $2 a day. In fact, 1.2 billion live on less than $1 a day. The evidence suggests that these income gaps are widening, not closing.... The accumulated wealth of the 225 richest individuals in the world is equivalent to the combined annual revenue of 2.7 billion people at the bottom of the global income ladder.”


In this report, they compared the BCG 100 with other indices and found that the BCG 100 outperformed the S&P 500 (and others) on Shareholder returns, Revenues, and Profits.

Clearly, country differences do exist. But, the outward-looking countries have a considerable advantage over closed societies. And, progress of countries from the proverbial “other side of the world” will impact corporate life in America and

See BOOKS, page 31
Claude McMillan, Jr.
1923-2008

On May 20th Claude McMillan passed away in Boulder, Colorado, just two days shy of his 85th birthday. He is survived by his wife, Sue, an author; three sons: Chip, a PhD in science education; Clayton, a PhD in neural networks; and Scott, a software designer; and a daughter, Diana, known for her outstanding work in promoting literacy in Boulder, Colorado.

Claude McMillan was my mentor. His influence on me began well before I met him for the first time. While working as a process control engineer with Borg-Warner Chemicals in the winter of 1970, I came across the second edition of Systems Analysis: A Computer Approach to Decision Models, co-authored by him with Richard F. Gonzalez while they were colleagues at Michigan State University. The book had a profound impact on the emerging practice of computer-based modeling and analysis of business decision-making processes.

On hearing of Claude’s passing, Linda Sprague, Thomas J. Petters Distinguished Professor of International Business at Rollins College, told me, “I met Claude through the American Institute for Decision Sciences some time after I had come to know Dick Gonzalez. I was quite in awe of the fact that I had then met both authors of Systems Analysis: A Computer Approach to Decision Models. … I had read the book just after the famous IBM MRP Seminars in 1973/74: it was required reading for PhD MIS students at MIT.”

Armed with the book, I developed a computer-based model of Borg-Warner Chemicals’ manufacturing plant in West Virginia, and experimented on it numerically, saving the company substantial amount of funds and materials. Inspired by this success, I resolved to pursue my doctoral studies with Claude. I had barely missed meeting Claude earlier at Michigan State University. By the time I arrived in East Lansing in 1966 as a graduate student, he had already moved to Boulder, Colorado. I traveled to Boulder in May 1972 to persuade him to be my mentor. From then on he remained my advisor, teacher, guide, and a generous friend.

Claude was one of the 16 founding members of the American Institute of Decision Sciences, known today as the Decision Sciences Institute. Al Simone, erstwhile president of Rochester Institute of Technology, and one of the original 16, recalls, “Back in the 1960s and 1970s, we were kindred spirits, attempting to introduce quantitative methods into the business curriculum. Claude was one of the early pioneers in this regard, and his seminal textbook paved the way for the developments which followed, including the establishment of the [American] Institute for Decision Sciences and its journal. His contributions have earned him a place in the history of our discipline.”

Roger Collons of Drexel University, another of the original members, adds, “I always thought of Claude as one of the great gentlemen in DSI and in the academic community at large. From time-to-time, he would bring his graduate students to meetings and I thought that was a really neat thing to do.” Claude was vice president of the Institute in 1970-1971, which was the Institute’s second year of existence. He was a member of the Institute’s Council during 1971-1973, and was elected Fellow of the Institute in 1980. He received the Institute’s Best Application Paper Award in 1985.

Claude’s schooling was in Ada, Oklahoma, where he was born. His childhood friend, retired Superior Court Judge Robert H. Kroninger of California, recalls, “Claude was my closest friend through high school. Of the dozen or so boys that hung around together, he had a memorable instance by his coinage of the term “managerial robot” which he explained as follows:

When a craft employee is replaced on an assembly line by a machine that performs the same function, we refer to the replacing mechanism as an industrial robot. Similarly, it is appropriate to give a special designation to a system which replaces a manager in performing key decision functions—by referring to such a system as a managerial robot—to distinguish it from a system that merely supplements the manager.

In applying this concept, Claude and two of his sons, Scott and Clayton, joined to build a system to replace managers in the decision-making function of employee scheduling, and formed a software company called Heuristec, Inc., that made their innovation available commercially. Their company was subsequently bought out by Tomax, Inc., which continues to provide their employee scheduling software to business and government organizations today.

Upon Claude’s retirement from university life he pursued his passion for playwriting in earnest, producing a series of plays that received a warm reception not only in Colorado where he made his home, but also in productions off Broadway. His friends would often refer to him as a “gentleman’s
the most inquisitive mind. He took a class in shorthand. At parties he would shake salt out on a table and practice writing shorthand in the salt with his finger. He took Latin while others took Spanish. He, along with some others, wanted to make a telescope and ground a lens. He was very inquisitive.” Claude earned his BS in electrical engineering and EE degrees at the University of Colorado at Boulder, graduating in 1948 and 1949, respectively. He married Shirley Sue Jackson in 1949. During 1951-53, he served the United States Air Force as a dashing first lieutenant, flying B-17s, The Flying Fortress. This experience laid the groundwork for his doctoral research. To earn his PhD at the Ohio State University, Claude investigated management use of financial standards in the air force, and received the degree in 1955. For the next decade he was on the faculty of Michigan State University. There he teamed up with Richard F. Gonzalez to explore the use of emerging computer technology in decision analysis. He also spent four years, from 1956 to 1960, in Sao Paulo, Brazil, as a member of a joint project between USAID, Getulio Vargas Foundation, and Michigan State University, to establish the first college of business in South America.

Claude’s move to the University of Colorado in 1965 put that institution on the decision sciences map. He persuaded Fred Glover to join him at the University of Colorado, as well. Claude was an outstanding teacher-scholar, fiercely loyal to his colleagues and students. He retired from the University of Colorado in 1988 as professor emeritus of management science and information systems. Along the way he published numerous papers and authored six outstanding books, including Mathematical Programming, and also Discrete Optimization with Donald R. Plane.

In 1988, I persuaded Claude to join my department at The Citadel, where I chaired the business administration program. Claude joked about ‘reporting’ to his student. I told him that this was a measure of his success as a teacher! After two years in my department as the W. Frank Hipp Professor of Business Administration, Claude retired from the academy to start an entirely new career in the theater. He wrote 14 plays and became a highly acclaimed playwright. He created plots that were rooted in the philosophies of decision sciences, knowledge management, and artificial intelligence. His plays were staged at a number of locales around the country, including Denver, Los Angeles, and off-Broadway in New York. Most notable of his plays are An Office for a Friend and The Deist. According to Luke McKissack of First Stage, Los Angeles, Claude’s plays demonstrated the brilliant, analytic mind of a philosopher.

Claude enjoyed the challenge of difficult philosophical dilemmas and thorny practical problems. He would frame questions for his students, family members, friends, and even chance acquaintances, to have them ponder and deliberate the issues. He had a way of igniting in others a sense of curiosity and a desire for learning. In our conversations, his questions were always short and concise. I would struggle with them and give him long, wordy answers. Once Claude challenged me to ponder on what causes a dilemma. He posited that an adequate moral theory should render all dilemmas moot. I said that according to some Eastern philosophies a person has many concurrent and potentially conflicting obligations arising from the person’s place in the overall scheme of things. Not all of these can be met at the same time, and therefore a person is constantly in a state of dilemma, independent of moral considerations. Claude flashed his characteristic, charming smile with a slow nod that was a mark of his encouragement. I was happy to have my teacher’s approval.

Claude was also a practical decision scientist who believed that action was an essential element of the decision-making process. He was not interested in trivial issues. In Variations, a play he authored, to which he also gave an alternative title of The Artificial Intelligencia, an artificial intelligence system salesman asserts, “Judging is not enough. You cannot be - - - just a judge. The world’s problems demand attention. Superficial thinking really shouldn’t be tolerated. As thinking human beings our place in the scheme of things is to perturb sloppy thinking, to reexamine antiquated ideas. And to direct those faculties we were endowed with—faculties for influencing events—toward their most productive employment.”

Claude will be sorely missed by many. He will never be forgotten. He will remain my teacher.

Krishna S. Dhir, Berry College
A Generous Colleague

Claude had a profound impact upon my career. Two incidents come to mind that illustrate his enthusiasm and generosity. The first is my initial meeting with Claude in 1967, when I was interviewing for a faculty position at the University of Colorado. His first words to me were, “Don, there is no better way to earn a living than to be on the faculty at the University of Colorado.” His enthusiasm was obviously genuine; that enthusiasm permeated every aspect of Claude’s career. He pursued each of his diverse interests with passion and creativity.

Generosity came easy to Claude, because he practiced it so often. Shortly after I became Claude’s colleague at Colorado, he enquired of my interest in collaborating on a book that eventually was titled Discrete Optimization. I agreed, even though I knew very little about the subject. I was confident Claude would generously guide my learning, which he did. As publication neared, Claude informed me that I would be listed as first author; his generosity was overwhelming to me, a young untenured faculty member. But let me set the record straight: Claude was undoubtedly the senior author of Discrete Optimization!

Donald R. Plane, Professor Emeritus, Crummer Graduate School of Business, Rollins College

Endnote

1. The Organization for Economic Cooperation and Development (OECD) is an international organization of ~30 countries which state that they accept principles of representative democracy and a free-market economy.
Institute Meetings
The 39th Annual Meeting of the Institute will be held November 22-25, 2008, at the Baltimore Marriott Waterfront Hotel in Baltimore, Maryland. See pages 33-42 for detailed information on activities in Baltimore. Contact Program Chair Marc Schniederjans, University of Nebraska-Lincoln, at dsi2008@unl.edu.

http://www.decisionsciences.org/annualmeeting/

The 2009 International DSI Meeting will be held June 24-27, 2009, in Nancy, France. Paper submission deadline is February 1, 2009. Contact Program Chair Minoo Tehrani, Roger Williams University, Bristol, Rhode Island, USA, mtehrani@rwu.edu.

http://internationaldsi.org/

The Asia Pacific Region held its 2008 Annual Meeting on July 2-5, 2008, in Brisbane, Australia (South Bank campus of Griffith University).

http://www.apdsi.org

http://www.cit.gu.edu.au/conferences/apdsi08/

The Indian Subcontinent Region will hold its second annual conference at the Indian Institute of Technology, Bombay, January 3-5, 2009. Submission deadline for extended abstract was July 15, 2008. For more information, contact Jatinder N. D. (Jeet) Gupta, The University of Alabama in Huntsville, guptaj@uaahl.edu.


The Mexico Region is still planning its next annual meeting. For more information, contact Antonio Rios, Instituto Tecnologico de Monterrey, antonio.rios@itesm.mx.

The Midwest Region will hold its 2009 Annual Meeting on April 16-18, 2009, in Oxford, Ohio. See url below for more information.

http://www.imb.muohio.edu/mwdsi2009/

http://www.pom.edu/mwdsi/


http://www.nedsi.org

The Southeast Region will hold its 2009 Annual Meeting on February 18-20, 2009, at the Doubletree Guest Suites in Historic Charleston, South Carolina. Submission deadline is September 19, 2008. The call for papers can be found at the link below. For further information contact Program Chair Wesley Jones, School of Business Administration, The Citadel, 171 Moultrie St., Charleston, S.C. 29409. Wes.jones@citadel.edu, (843) 953-7531, Fax: (843) 953-6764.

http://www.sedsi.org

The Southwest Region will hold its 2009 (30th) Annual Meeting on February 24-28, 2009, at the Renaissance Hotel, Oklahoma City, Oklahoma, USA. Submission deadline for papers is September 15, 2008. For more information, contact Joe T. Felan, University of Arkansas at Little Rock, jtfelan@uah.edu.

http://www.swdsi.org

The Western Region will hold its 2009 (38th) Annual Meeting on April 7-11, 2009, in Kauai, Hawaii. Submission deadline for abstracts and papers is October 1, 2008. For more information contact Nafisseh Heiat, Program Chair, programchair@wdsinet.org.

http://www.wdsinet.org

Call for Papers

Conferences
IEEE ICWS 2008 (6th IEEE International Conference on Web Services) will be held September 23-26, 2008, in Beijing, China. Abstract submission deadline was April 2, 2008.

http://conferences.computer.org/icws/2008

The Second International Conference on Information Technology and Management (ICITM2009) will be held January 5-7, 2009, in Wuxi Jiangyin, China. Organized by The Hong Kong Polytechnic University, the conference is hosted by the Institute of Systems Management (PolyU) and co-organized by the Jiangnan University of China. Submission deadline is September 15, 2008.

http://www.comp.polyu.edu.hk/icitm2009/(to be completed soon)

http://www.ismjy-polyu.cn/icitm_website1


The 6th eLearning Applications Conference will be held January 10-12, 2009, at the American University in Egypt Cairo, Egypt. The extended abstract submission is October 1, 2008. Submit abstracts to elearning@aucegypt.edu or abrahim@aucegypt.edu.

http://www.aucegypt.edu/Research/auconference/elearning/Pages/default.aspx

The Conference ISBN number is 1687-3971 and some selected papers of the conference will be published in the following journals: iJET (International Journal of Emerging Technologies in Learning), www.i-jet.org (special issue) iJAC (International Journal of Advanced Corporate Learning), www.i-jac.org (special focus issue). Abstracts are required in the first instance and should be submitted by Oct. 1, 2008, via the online form at http://dr-foudad.com/openconf/

The 26th Annual Pan-Pacific Conference, “Strategic Innovation through Collaboration and Convergence,” will be held June 1-3, 2009, in Shenzhen, China. Submission deadlines: Abstracts

See ANNOUNCEMENTS, page 45.
2008 Program Chair’s Message

MARC J. SCHNIEDERJANS, University of Nebraska-Lincoln

“Improving Competitiveness through Information and Decision Sciences” is the theme of the Decision Sciences Institute’s 2008 Annual Meeting in Baltimore, Maryland. The hallmark of any world-class organization is its ability to compete successfully. Today’s markets require timely information and effective decision making based on the information. In this paradigm, information becomes the product and the decision science becomes the process.

The Decision Sciences Institute (DSI) encourages the advancement of decision-making research in many ways, including the sponsoring of its annual meeting, where scholars and practitioners from all over the world are invited to share the latest decision-making developments. The DSI 2008 Annual Meeting invites basic, applied, theory, and case study research in the field of decision making, as well as proposals for panel discussion, symposia, workshops, and tutorials dealing with research or pedagogical issues. This meeting will include invited sessions featuring highly respected researchers, educators, and practitioners who will share their knowledge and experience on decision-making practices. The sessions will be organized into 23 tracks and various miniconferences. The meeting will also feature curricular issues, technology in the classroom, doctoral student consortium, grantmanship, and faculty development programs for both new and senior faculty.

The DSI 2008 Annual Meeting offers much more than just a paper presentation conference! The meeting offers faculty opportunities to renew teaching/technology skills, learn how to use current methodologies to enhance future research efforts, find employment, and establish networks that can last a career lifetime.

The 2008 DSI Annual Meeting will be held in Baltimore, Maryland, from November 22-25 at the Baltimore Marriott Waterfront. This hotel is set on the edge of Baltimore Inner Harbor in the heart of Harbor East, the newest Baltimore neighborhood. You are steps away from Inner Harbor restaurants and shopping, the National Aquarium, Maryland Science Center, and USS Constellation. There are just too many things in Baltimore alone to list, plus you are less than 35 miles (55.2 km) from Washington, D.C., which makes this a great location to take in a wide variety of places to visit. Registration information on the hotel and meeting event activities in Baltimore is available on the meeting website. If you have any questions, suggestions, or requests, feel free to email me at dsi2008@unl.edu. For information on the hotel, see the link from the DSI annual meeting website (below).

You are invited to participate in the 2008 DSI Annual Meeting in Baltimore. Plan to present your most recent research and teaching innovations, and attend a number of miniconferences and consortia scheduled during the meeting. Consistent with the Institute’s commitment to collaboration across academic disciplines, the meeting encourages research and teaching innovations in all areas of information and decision sciences.
2008 Competitions

For a listing of past DSI award winners, see www.decisionsciences.org/hallfame.htm.

Elwood S. Buffa Doctoral Dissertation Award Competition
The purpose of the Doctoral Dissertation Award Competition is to encourage and publicize outstanding dissertation research by selecting and recognizing the best dissertations written in the past year in the decision sciences. The Elwood S. Buffa Dissertation Award, accompanied by a $1,500 prize, will be presented at the annual meeting. Submission deadline was April 1, 2008. For more information concerning this competition, please contact the coordinator.
Nancy Lea Hyer, Vanderbilt University, nancy.lea.hyer@owen.vanderbilt.edu

Best Paper Awards Competition
Best Paper Awards will be presented at the 2008 Annual Meeting. Categories include Best Theoretical/Empirical Research Paper, Best Application Paper, and Best Interdisciplinary Paper. At the discretion of the program chair and track chairs, outstanding scholarship may be recognized through a distinguished paper award in a given track. Reviewers will be asked to nominate competitive paper submissions for these awards. Nominations will then be reviewed by a Best Paper review committee, which will make award recommendations. Submission deadline was April 1, 2008.
E. Powell Robinson, Texas A&M University, e-robinson@tamu.edu

Best Case Studies Award Competition
The Case Studies Workshop serves an active role in the dissemination of new ideas with respect to case studies topics. Cases may be methodological in nature (i.e., crafted to support the learning of a specific technical skill) or integrative (i.e., designed to foster the integration of scientific approaches and analyses with real-world decision making). Submission deadline was April 1, 2008.
Ayman Abuhamdieh, Indiana State University, sdayman@isugw.indstate.edu

Best Student Paper Award
An award for the best student paper will be presented at the 2008 Annual Meeting. Reviewers will be asked to nominate competitive paper submissions for this award. Nominations will then be reviewed by a Best Student Paper Award review committee that will make award recommendations. This is a great opportunity for students to receive recognition for their research.
Kathryn M. Zuckweiler, University of Nebraska at Kearney, zuckweilerkm@unk.edu

Instructional Innovation Award Competition
The Instructional Innovation Award Competition seeks to recognize outstanding contributions that advance instructional approaches within the decision sciences. The focus of this award is on innovation in college- or university-level teaching. Three finalists will be chosen to make presentations at the conference competition. The winning entry receives an award of $1,500, and $750 will be divided among each of the other finalists. Applicants are required to submit all contributions electronically using instructions on the conference website. Submission deadline was April 1, 2008. For more information concerning this competition, please contact the coordinator.
Julie Kendall, Rutgers University, kendallj@crab.rutgers.edu
2008 Professional Activities

Curricular Issues Miniconference
The 2008 Curricular Issues Mini Conference, to be held in conjunction with the annual meeting November 22-25, will include several sessions that address issues that cut across the business curriculum. Planned sessions will address: AACSB Curriculum Guidelines, Assessment and Feedback, The Role of ERP Systems, Implementing Co-Curricular Activities, and Applying Lean Manufacturing Principles. In addition, authors of recent articles in the Decision Sciences Journal of Innovative Education will present details of teaching innovations and recent empirical findings.

Vijay R. Kannan, Utah State University, v.kannan@usu.edu

Doctoral Student Consortium
The Doctoral Student Consortium provides a unique opportunity for doctoral students from across the U.S. and world to interact with one another and with distinguished scholars in a one-day program devoted to career development. Attendance at this consortium is by invitation based on application. All students who meet the criteria will be accepted.

Maling Ebrahimpour, Roger Williams University, bizdean@rwu.edu

Doctoral Studies Miniconference
Doctoral education is at the core of academic and scholarly development. However, very little attention has been given to the promotion, dissemination, and sharing of research that specifically deals with issues of doctoral education in focus areas such as information systems, decision sciences, operations research and management, information technology, and information science. This miniconference will provide an opportunity for researchers to discuss new ideas on research conducted, or future opportunities for research, in doctoral studies related (but not limited) to the key focus areas noted above. Primarily, the Doctoral Studies Miniconference will be interested in original papers, initial research drafts, works in progress, and panel discussion proposals in these focus topics.

Yair Levy, Nova Southeastern University, levyy@nova.edu; Irma Becerra-Fernandez, Florida International University, beceri@fiu.edu; George M. Marakas, University of Kansas, gmarakas@ku.edu

New Faculty Development Consortium
The New Faculty Development Consortium deals with research, teaching, publishing, and other professional development issues for faculty who are beginning their academic careers. Attendance at this consortium is by application and is open to faculty members who have a Ph.D. degree and are in the first two years of their teaching career.

William B. Carper, University of West Florida, bcarper@uwf.edu; Carl W. Gooding, Samford University; James A. Pope, Louisiana State University in Shreveport

Professional and Faculty Development Program
The Professional and Faculty Development Program is for Institute members at all stages of their careers, with the goal of keeping them current in their fields. The content of the sessions is designed to provide insight into the challenges and opportunities in today’s rapidly changing environment (see topics on the 2008 Annual Meeting website). In addition, the program will include a series of sessions related to research, teaching, publishing, and other professional development issues for faculty who are beginning their academic careers. Submission deadline was May 1, 2008.

Binshan Lin, Louisiana State University in Shreveport, Department of Management, binshan.lin@lsus.edu

Successful Grantsmanship Miniconference
Securing external research grants is a valuable experience, or even a necessary step, because it can significantly enhance research projects. A day-long event to be held on Sunday, November 23, 2008, the Miniconference on Successful Grantsmanship is intended to help develop interests among DSI members in obtaining external research grants and to sharpen skills in writing grant proposals so that endeavors may be more fruitful. You are invited to hear expert panelists and network with like-minded researchers.

Q. B. Chung, Villanova University, q.chung@villanova.edu

Kristie Seawright, Brigham Young University, kristie.seawright@byu.edu

Technology in the Classroom Miniconference
Please join us at this year’s DSI meeting for the Miniconference on Technology in the Classroom. We have several interesting interactive presentations scheduled including using ‘clickers’ in the classroom, a LINKS Demo and the effective use of Excel and Power Point. The use of IT and web-based tools will be the main topic of some sessions as well as an exciting one on the use of artificial intelligence and educational robotics. Hope to see you there! Any questions can be directed to either of the coordinators below.

William Johnson, Bentley College, wjohnson@bentley.edu

Rupak Rauniar, University of St. Thomas, rauniar@stthom.edu

Baltimore’s harbor at sunset.
The spectacular Baltimore Marriott Waterfront Hotel, which is hosting the 2008 Decision Sciences Institute Annual Meeting, is set on the edge of the Baltimore Inner Harbor in the heart of Harbor East, the newest Baltimore neighborhood. Guests are steps away from Inner Harbor restaurants and shopping, the National Aquarium, Maryland Science Center & USS Constellation. The hotel is also within easy walking distance of downtown Baltimore, the Convention Center, Camden Yards & M&T Bank Stadium sporting events.

For reservations at the Baltimore Marriott Waterfront, please refer to the guidelines below. Note that check in time is 4:00 pm of the day of arrival and check out time is 12:00 pm, day of departure.

Group room rate reservations may be available based on occupancy of the hotel from November 17 – December 1, 2008.

There are two ways to make reservations (hard-copy forms are no longer used*):

Reservations Line: (800) 228-9290
When booking via phone on the Marriott Reservation line, please be sure to reference the “Decision Sciences Institute Meeting” in order to secure the special group room rates.

Reservations Online (use group codes below):

Group codes:
• Single occupancy rooms: dsidsia
• Double/triple/quad occupancy rooms: dsidsib

NOTE: For room reservations for triple or quad occupancy, please note that your room rate will be changed upon arrival to $209 for a triple and $229 for a quad.

To guarantee your reservations at the Baltimore Marriott Waterfront and to receive the special offered group rate, your reservations must be made by Friday, October 31, and you must supply a credit card with the expiration date available from the following list: Visa, Master Card, American Express, Discover, Diners Club.

Note that the Decision Sciences Institute special group rate may not be available if the group room block becomes full, or after October 31, which is the cut off date for making reservations to receive the special group rate.

If for some reason your plans change, you may cancel your reservation up and until 6pm of date of arrival. Should you not cancel your reservation, you will be billed for one night room charge and tax.

Baltimore Marriott Waterfront hotel types:
• One king-size bed in room
• Double/double bed in one room

Rates based on occupancy:
• $174 (single)
• $189 (double)
• $209 (triple)
• $229 (quad)

At previous Decision Sciences Institute meetings, Marriott hotels have permitted attendees to reserve rooms by faxing or mailing a hard-copy form. Starting in 2008, Marriott no longer accepts a reservation using a form that contains credit card number information.

Need a roommate? Doctoral students, faculty and business leaders are often looking for someone to share a room with during the annual meeting. For online assistance, fill out our roommate match form at the url below and submit your information to DSI:
http://www.decisionsciences.org/annualmeeting/meetinginfo/roommates.asp

Baltimore Marriott Waterfront
700 Aliceanna Street
Baltimore, MD 21202
410-385-3000

Marriott Centralized Reservations
1-800-228-9290
2008 Doctoral Student Consortium

Creating successful career paths for students

Co-sponsored by McGraw Hill/Irwin, Beta Gamma Sigma, and DSI

DSI’s 26th annual Doctoral Student Consortium is an engaging, interactive professional experience designed to help participants successfully launch their academic careers. We are pleased to have the sponsorship of McGraw Hill/Irwin and Beta Gamma Sigma for this important event. The Consortium will take place on Saturday, November 22, 2008, at the 2008 DSI Annual Meeting in Baltimore, Maryland.

Who Should Attend?
The Doctoral Consortium is offered to individuals who are well into their doctoral studies. The Consortium welcomes students from all subject areas within the decision sciences. A variety of students with backgrounds in operations management, management information systems, management science, strategy, organizational behavior, marketing, finance, accounting, and other areas will increase the vitality of the sessions. The program will focus on career goals, job search strategies, teaching effectiveness, manuscript reviewing, and promotion and tenure. Students who are interested in addressing these subjects in a participative, interactive way will enjoy and benefit from the Consortium.

Why Should You Attend?
There are several important reasons why you should attend.

1. Networking: Getting a job, finding collaborators, and gaining advantages in the career you are about to enter are all related to “who you know.” This is your chance to meet and get to know some of the leading researchers and educators in the field.

2. Skill development: Excellent teaching and research require practical skills in addition to content knowledge. You will learn from veterans who will share their secrets to success.

3. Furthering your research: The research incubator will give you a chance to engage in a discussion of your research ideas with your peers and with outstanding researchers.

4. Learn about DSI: This is a chance to “test-drive” DSI, learn about its people, it processes (such as placement services), and its opportunities.

5. Fun! Come socialize with your current and future colleagues in a city that has retained its sense of history and tradition, while carefully blending in cosmopolitan progress.

Program Content
The Doctoral Student Consortium involves seasoned, world-class research faculty from several schools, junior faculty just beginning their careers, and key journal editors. All will help guide discussions in the following sessions.

Teaching Effectiveness. Harvey Brightman will return to the Doctoral Consortium for another post-retirement workshop in 2007. His sessions are simply not to be missed. Even experienced faculty members sit in on these dynamic and inspiring sessions.

Research Strategy Workshop. In this hands-on workshop, tenured faculty mentors help participants to develop a strategic research plan for moving from the dissertation to a research program that will put them on a strong trajectory for tenure. Working in small breakout groups and with the advice and guidance of the faculty mentor, participants will identify their areas of expertise, target appropriate journals, find suitable co-authors, and plan a mix of publications.

Your Career as a Professor. In this session, you will hear from Professor Ira Horowitz, a DSI Fellow and past president who will share his insight and secret for success as a professor in academia.

Meet the Editors and Academic Reviewers. Editors from journals in the decision sciences and related fields will describe the missions of their publications and will discuss how to craft strong manuscript submissions, how to improve the chances of getting a journal article accepted, and how to respond to reviews. Participants will also learn about how to be a constructive reviewer of manuscripts.

Job Search Seminar. Should I target my job search on research-oriented schools? Teaching schools? Private? Public? What’s the best way to sell myself? What are the ingredients of a good job interview? This session will help participants answer these questions through insights drawn from a panel of faculty experts.

Join Us
The Doctoral Student Consortium does more than prepare individual students, it creates a community of colleagues you’ll know throughout your career. Please plan to attend the Consortium and also encourage your student colleagues to participate in this important program. Although many participants will be entering the job market for 2007-2008, others will appreciate the opportunity to get a better understanding of an academic career and how to approach the job market the following year.

Application Process
Students in all areas of the decision sciences are encouraged to apply for the DSI Doctoral Student Consortium. Those wishing to be included should submit:

1. A current curriculum vita, including contact information (e-mail in particular), your
2008 DSI Annual Meeting

major field (accounting, finance, marketing, management, operations management, MIS, management science, strategy, and so on), the title of your dissertation proposal or the title of a current research paper.

2. A letter of recommendation from your dean, doctoral program director, department chair, or dissertation chair. The letter should attest to the applicant’s qualifications and good progress in the doctoral program. Interested students are encouraged to apply early if they wish to ensure themselves space in the Consortium. Materials should be sent to Maling Ebrahimpour, Doctoral Consortium Coordinator, by July 30, 2008. Those who apply by this date and meet the criteria listed above will be accepted for participation. Applications received after July 30th will receive consideration on a space-available basis.

Participants must pay the regular student registration fee for the annual meeting, but there will be no additional charge for the Consortium. This fee includes the luncheon and reception on Saturday, the networking luncheon on Sunday, and the CD-ROM of the conference proceedings. Although students will be responsible for all of their own travel and accommodation expenses, it is customary for participants’ schools to provide monetary support for these purposes.

Consortium participants will be recognized in Decision Line, the Institute’s news publication. They also receive special recognition in the placement system, special designation on their name badges, and an introduction to the larger DSI community at the breakfast and plenary session.

Doctoral Consortium Coordinator
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Baltimore’s scenic harbor.

2008 Track Chairs

Accounting: Assurance and Public Accountability
Ashley Burrows, University of Wisconsin-Lacrosse

Business Ethics and Leadership
Shirley Hopkins, California State University, Chico

Case Studies
Corinne Karuppan, Missouri State University
Muthu Karuppan, Drury University

DSS/AI/Expert Systems
Mahour Mellat Parast, University of North Carolina-Pembroke
John H. Kim, Southwest Minnesota State University

E-Commerce
Seongbae Lim, St. Mary’s University
Daesung Chang, Kyonggi University

Fellows Track
Manoj K. Malhotra, University of South Carolina-Columbia

Finance/Financial Management
Barbara Poole, Roger Williams University

Hospitality Management
G. Keong Leong, University of Nevada-Las Vegas
Natasa Christodoulidou, California State University, Dominguez Hills

Information Security
Merrill Warkeintin, Mississippi State University
Allen C. Johnston, University of Alabama-Birmingham

Information Systems
Jeryl Nelson, Wayne State College
Tim Garvin, Wayne State College

Innovative Education
Steven Yourstone, University of New Mexico
Rachna Shah, University of Minnesota-Twin Cities

International Business
André M. Everett, University of Otago, New Zealand

Knowledge Management
Dianne Hall, Auburn University
Todd Peachey, Auburn University

Manufacturing Management and Practice
John R. Olson, University of St. Thomas
Carol Prahinski, Michigan State University

Marketing: Theory Applications and Practice
Effie Stavulaki, Bentley College

MS/OR: Techniques, Models and Applications
Gyu Kim, Northern Illinois University
Suk-Ki Hong, Dankook University

Organizational Behavior/Organizational Theory
Robert Dengler, Benedictine University

Project Management and New Product Development
Dwight Smith-Daniels, Arizona State University
John McCreery, North Carolina State University

Quality and Productivity
Barbara B. Flynn, Indiana University

Service Management
Jo Ann Duffy, Sam Houston State University
Gerald Køhers, Sam Houston State University

Statistics and Decision Analysis
Robert J. Pavur, University of North Texas
Kellie Keeling, University of Denver

Strategy and Policy
Karen L. Fowler, University of Northern Colorado

Supply Chain Management
Sahir Funda, University of Tennessee-Knoxville

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Sahir Funda, University of Tennessee-Knoxville
The New Faculty Development Consortium is for faculty in the beginning years of their academic careers who would like to learn more about teaching, research, publishing, and other professional development issues. Attendance at this consortium is by application and is limited to faculty members who have earned their doctoral degrees in a business discipline and who are in the first three years of their post-doctoral teaching careers within business schools or equivalent. The chronological age of the participant is not material—the key is being a “new” faculty member.

The consortium will last a full day on Saturday, November 22, 2008, beginning with a meet and greet session at 7:30 am. It will include interactive and panel sessions with faculty at varying stages of their careers as well as opportunities for interaction and networking with more experienced colleagues. The content of the sessions offered is intended to provide insight into the challenges and opportunities in today’s rapidly changing higher education environment. Topics may include, but will not be limited to, the following:

- What it means to be a faculty member today
- Learning the “rules” of the game—tenure and promotion policies at different types of schools
- Becoming an excellent teacher and how to documenting it
- Becoming an excellent researcher in various types of environments
- The role of service—departmental, institutional, community, and professional

The New Faculty Development Consortium is for faculty in the beginning years of their academic careers who would like to learn more about teaching, research, publishing, and other professional development issues. Attendance at this consortium is by application and is limited to faculty members who have earned their doctoral degrees in a business discipline and who are in the first three years of their post-doctoral teaching careers within business schools or equivalent. The chronological age of the participant is not material—the key is being a “new” faculty member.

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- Becoming an excellent researcher in various types of environments
- The role of service—departmental, institutional, community, and professional

See NEW FACULTY, next page

New Faculty Development Consortium Co-Ordinators
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bcarper@uwf.edu

Carl W. Gooding
Samford University

James A. Pope
Louisiana State University in Shreveport

Application for
New Faculty Development Consortium
November 22, 2008 • Baltimore, Maryland

Send in this form and a current copy of your vita to the Co-Coordinator (see above). Application deadline: Sept. 15, 2008.

Name: _____________________________

Current institution and year of appointment: __________________________

Mailing address: _____________________________

Year doctorate earned: _____________________________

Doctoral institution: _____________________________

Phone: _____________________________

Fax: _____________________________

E-mail: _____________________________

Research interests: _____________________________

Teaching interests: _____________________________

Major concerns as a new faculty member and/or topics you would like to hear discussed:

Have you attended a previous DSI Doctoral Student Consortium?

____ yes   ____ no

If so, when? _____________________________
2008 DSI Annual Meeting

• Career path strategies, organizational politics, and the importance of networks and mentors
• Understanding that everyone does not receive tenure at his or her first institution and that this does not mean your career is over
• Building an academic portfolio that will serve you well
• Academic ethics
• Future trends in the academy

To apply for the 2008 New Faculty Development Consortium, please complete the application form and send it along with a copy of your current vita to the NFDC Co-Coordinator. All applications must be received by September 15, 2008. More specific information will be provided to those participants who are accepted for the Consortium.

Participation is limited to the first 50 qualified applicants. Each participant will be expected to register for the Institute’s 2008 Annual Meeting in Baltimore, MD. No additional fees are charged for the New Faculty Development Consortium.

The star-shaped Fort McHenry is a famous point of interest in Baltimore. It was the valiant defense of the fort during the War of 1812 that inspired Francis Scott Key, a lawyer and amateur poet, to compose the Star Spangled Banner.

DSINFO Listproc

DSINFO, a listproc maintained by the Decision Sciences Institute, broadcasts emails on news and announcements relating to DSI and the decision sciences community. The listproc can be used for announcing calls for papers and for updating news on meeting and other events. (We ask that you support the Institute by using the DSI Job Placement Service or online Marketplace to list job positions.)

DSINFO subscribers also receive notice from DSI when Decision Line articles are made available on the DSI website. Because this content is placed online prior to printing the hard-copy, the articles are available on the Internet weeks before the publications arrive in the mail.

For more information on joining DSINFO or to subscribe, visit http://mailbox.gsu.edu/mailman/listinfo/dsinfo

Professional and Faculty Development Program

The Professional and Faculty Development Program is for DSI members in all stages of their careers, with the goal of keeping them current in their fields. The content of the sessions is designed to provide insight into the challenges and opportunities in today’s rapidly changing environments. Topics include, but are not limited to the following:

• Assessment in practice.
• Balancing the needs of different stakeholders in the educational process.
• Blogs in business school.
• Career path strategy.
• Cutting edge pedagogical research.
• Developing Chinese business education.
• Globalization of business education.
• How do you get the message across?
• How do you turn conference paper into journal article?
• Meeting increasing demands in teaching, service, and research.
• New instructional and research methodologies.
• Obtaining research funding.
• Online communities in academic world.
• Sustainability and management in business school.
• Teaching an integrated core curriculum
• The challenges and opportunities of new technologies.
• The role of grading and assessment.
• Transforming curriculum design and development.

In addition, the program will include a series of sessions related to research, teaching, publishing, and other professional development issues for faculty who are beginning their academic careers. Submission deadline was May 1, 2008.

Professional and Faculty Development Program Coordinator
Binshan Lin
Louisiana State University in Shreveport
Department of Management
binshan.lin@lsus.edu
Miniconference on Successful Grantsmanship

The majority of DSI members are active researchers. External research funding can significantly enhance research efforts. The Miniconference on Successful Grantsmanship is designed to provide DSI members with an opportunity to develop interests, broaden perspectives, and explore collaboration in sponsored research while developing skills in writing grant proposals.

The miniconference is a one-day event to be held on Sunday during the DSI Annual Meeting. Session 1 will set the stage for the Miniconference with an overview of various funding opportunities. Session 2 will showcase panelists representing major funding sources ranging from government agencies to private funding organizations.

In Session 3 (Networking Luncheon), miniconference participants will form small groups and exchange research ideas and learn from one another as well as from experts sharing the table. In the afternoon, two workshops will offered. Participants will be able to participate in both workshops since they are offered twice.

Sessions 4 and 5 will feature experienced workshop leaders who will share their expertise in grant writing and show how to frame the proposal from the reviewer perspective.

Registration is required, although there is no registration fee to participate for those that are registered for the DSI Annual Meeting. To register, simply send an e-mail to either of the miniconference coordinators, with your contact information. Networking luncheon includes complimentary lunch. Seats are limited. First-come, first-served.

- Session 1—Tutorial: Overview of Funding Sources
  Sunday 10:00 - 11:00 a.m.

- Session 2—Panel: Successful Proposals from the Funding Source Perspectives
  Sunday 11:00 a.m. - 12:00 p.m.

- Session 3—Networking Luncheon
  Sunday 12:00 - 1:30 p.m.

- Session 4—Workshops:
  (1) Getting Started Writing Grant Proposals; (2) Grant Proposals from the Perspective of the Reviewer
  Sunday 1:30 - 2:30 p.m.

- Session 5—Workshops:
  (1) Getting Started Writing Grant Proposals; (2) Grant Proposals from the Perspective of the Reviewer
  Sunday 2:30 - 3:30

Q. B. Chung, Villanova University, q.chung@villanova.edu
Kristie Seawright, Brigham Young University, kristie_seawright@byu.edu

Room Sharing in Baltimore
Need a roommate at the 2008 DSI Annual Meeting? Doctoral students and faculty are often looking for someone to share a room with during the annual meeting. For online assistance, fill out the roommate match form (located at the link below) and you’ll receive information about other people looking for roomates.

http://www.decisionsciences.org/annualmeeting/travel/hotel.asp

Tips for Doctoral Students—Getting the Most from the DSI Annual Meeting
The Decision Sciences Institute Annual Meeting provides an opportunity for doctoral students to network, develop professional skills, interview for faculty positions—and have a good time!

For students who want to know how to get the most out of the Annual Meeting, see “Tips for Doctoral Students” on the DSI Web site at

http://www.decisionsciences.org/people/doctoral.asp

See past Decision Line articles focusing on doctoral student issues at


Journal Editors Attending the 2008 DSI Annual Meeting
Check out “Activities” at the link below for an alphabetical listing of editor-in-chiefs and regional editors who have expressed interest in attending the 2008 DSI Annual Meeting. Many other area editors, managing editors, and associate editors will also be in attendance.

www.decisionsciences.org/
**Hospitality Management Track**

This year we are proud to be co-chairing the Hospitality Management Track for the 2008 Decision Sciences Institute annual meeting. This is the first time that DSI is hosting the track. We are delighted to have received many submissions from academics from all over the world, reflecting the importance and globalization of the field of hospitality management. We hope in the long term that the hospitality management track will become an integral part of the Decision Sciences Institute annual meeting. We look forward to meeting everyone at the DSI Annual Meeting in Baltimore.

Track Chairs: G. Keong Leong, University of Nevada-Las Vegas, and Natasa Christodoulidou, California State University-Dominguez Hills

**International Business Track**

“Teaching & Researching China” is a special panel session featuring Bill Fischer & Rebecca Chung, IMD, Lausanne, Switzerland; Linda Sprague, Rollins College, Florida; Denis F. Simon, Pennsylvania State University; and André M. Everett, Otago University, New Zealand. How to squeeze 1.3 billion more people into your classroom? China’s story is one of the biggest headlines of our time, yet how to present it in a traditional Western business curriculum? This panel will present and discuss China-focused teaching approaches and materials for use in DSI classrooms. Look for our panel in the program and on-line at http://www.DSIChinaClassroom.blogspot.com

Track Chair: André M. Everett, Otago University, New Zealand

**Case Studies Track**

This year, the Case Studies track abounds with exciting cases designed to stimulate our students’ critical thinking. The topics are extremely varied: project management, entrepreneurship, interfaces between marketing and operations, health care management, etc. This broad range certainly appeals to a large proportion of the DSI constituency. This is why the track chairs are urging you to attend the Case Studies sessions, share your insights, and participate in a dynamic conversation on how to engage our students with these remarkable teaching tools. See you soon in Baltimore!

Track Chairs: Corinne Karuppan, Missouri State University, and Muthu Karuppan, Drury University

**Information Systems Track and Decision Support Track**

A special invited panel session on the Current Status of Usage and Applications of Mobile Alert, WiBro, Cellular TV, and Web 2.0 featuring J. P. Shim, Mississippi State University; Raj Sharman, The State University of New York at Buffalo; Mark Schmidt, St. Cloud State University; Seungwook Park, Inha University; and Brett J. L. Landry, University of Dallas.

IS Track Chairs: Jeryl Nelson, Wayne State College, and Tim Gavin, Wayne State College

DS Track Chairs: Mahour Mellat Parast, University of North Carolina-Pembroke, and John H. Kim, Southwest Minnesota State University

**from the Statistics Track**

The mission of the “Making Statistics More Effective in Schools and Business” (MSMESB) miniconference is to improve the teaching and practice of statistics in schools and business. More specifically, MSMESB focuses on improving the teaching of statistics and statistical thinking, on cross-disciplinary research, on continuous improvement in business and education, and on interaction between academia and industry. We aim to encourage interaction between business faculty and others involved in teaching business statistics with professionals from industry and government, with publishers, and with software vendors. The following four panels will be presented as part of this miniconference. The panelists will present their findings and perspectives on a variety of challenges facing instructors teaching introductory statistics classes in colleges of business.

**MSMESB Session 1: What Should We Teach Business Students in Introductory Statistics?**

Session Chair: Robert Andrews, Virginia Commonwealth University

This session will examine what should be taught in an introductory statistics class from several perspectives: statistics teachers, teachers of courses that use statistics, and professionals in business. The panelists will present their findings and perspectives on what should be in the course to serve as a spring board for a moderated discussion that will include those in the audience.

Panelists: Kim Melton, North Georgia College and State University; Ellen Walk, University of Richmond; Weiyong Zhang, Virginia Commonwealth University; and Richard Drapeau, Lamar University

**MSMESB Session 2: How Should We Teach Business Students in Introductory Statistics?**

Session Chair: Robert Andrews, Virginia Commonwealth University

An instructor often chooses an instructional method that is deemed to be the most efficient and effective for him/her, but it may not be the most effective for the students who learn and think differently. Do we need to get out of our boxes of statistics instruction? Panelists will share their findings and beliefs as well as their experiences with getting out of the box in delivering statistics instruc-

See SELECT SESSIONS, next page
political upheavals and intrigue—and how this was interpreted into business strategies. But then, about 500 B.C., Sun Tze, the pioneer of military tactics, wrote his Art of War, and these were adopted by the Japanese Army in the Second World War (concept of “surprise” in Pearl Harbor) and then by the U.S. Army in supply chain management and military logistics. For some time, I have been espousing the virtues of Sun Tze’s edict to my students, “An Army that lacks heavy equipment will lose the battle; an army that does not have food will not survive; an army that does not have supplies cannot continue fighting” … all this without actually reading the Art of War.

Imagine my surprise then, when I finally read this book (actually, I bought three versions of it in a shopping frenzy in Singapore), and realized that Sun Tze mentioned a lot more about winning wars than just armaments and supplies. Within the 13 chapters, he gave us such gems like: Before winning a battle, start planning first (implementation will be much easier with better planning); a war should be won quickly without being prolonged; to subdue the enemy without fighting is perfect victory (collaboration even with “enemies,” alliance only if it is advantageous); never go to war unprepared; creating favorable conditions and seizing the opportunity to win (the necessity for the commander to have mastery of flexible strategies and the troops to be disciplined, well-trained, and flexible; the caring and consideration of your troops); convert unfavorable factors into favorable ones and seize the opportunity to fight (e.g., good sources of supplies, useful local guides); make flexible adjustment of tactics according to changing circumstances of the battlefield; observation of the battlefields; military geography should not be neglected (environmental scans and competitive intelligence); strategic reconnaissance is essential in war. This is by no means a comprehensive list.

There have been many versions of business interpretations published and available but rather than resort to these interpretations, I would advise you to try to read the source documents yourself or at least the language-translated version, then come up with your own interpretations (very much like one reading the Bible or Koran from the source documents rather than someone else’s interpretations). You may find it a fascinating journey of insights and discoveries, as I did.

What did I get out of this? It was the holistic, structured approach to making decisions, and the recognition of all the parts that are necessary to work well together to produce your required outcome. So, when we consider project over-runs, and compare them to other successful, timely projects, it is easy to see how often this comprehensive, holistic approach is lost, and the recognition that we are all parts of a whole.

We’re getting into a great part of the year, weather-wise, spring or autumn, depending on where you are—I sincerely hope you enjoy it!

Norma J. Harrison (海若琳)

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**SELECT SESSIONS, from previous page**

**SESSIONS**

**Session Chair: Barry Wray, University of North Carolina Wilmington**

Business schools are facing Assurance of Leaning challenges (AOL) for all courses including the Introductory Statistics course. This panel will discuss potential benefits and challenges as a result of the AOL process including (1) How can Business Schools benefit from the AOL process? (2) What are some implementation issues? (3) What are some possible problems of a poorly designed AOL process? (4) What is the future direction of AOL in the Introduction to Statistics course?

Panelists: Stephen Custer, Virginia Commonwealth University; Kellie Keeling, University of Denver; Nicole Koppel, Montclair State University; and William Rybolt, Babson College

**MSMESB Session 3: Assurance of Learning Issues for the Business Introductory Statistics Course.**

**Session Chair: Keith Ord, Georgetown University**

The topical coverage in the introductory statistics course has not changed much over the years. However, solutions that were infeasible in the past are now available and may provide students with greater insights than classical approaches. We will explore several such issues: (1) New rules of thumb for the modern course; (2) Resampling and randomization for comparing two independent groups; (3) When to use the Central Limit Theorem? The presentations will be followed by an extended discussion.

Panelists: John D. McKenzie, Jr., Babson College; Mark L. Berenson, Montclair State University; and Keith Ord, Georgetown University

**MSMESB Session 4: The Introductory Statistics Course: New Answers to Old Questions**

**Session Chair: Keith Ord, Georgetown University**

Track Chairs: Robert J. Pavur, University of North Texas, and Kellie Keeling, University of Denver

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**PRESIDENT’S LETTER, from page 1**

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Norma J. Harrison (海若琳)
The Decision Sciences Institute holds an international meeting every two years that features presentations of original research papers; Ph.D. and new faculty development seminars; case studies; and other interesting innovations in the field of business (see tracks below). Best paper awards are given in several categories at the conference. The 2009 International DSI Meeting will be held June 24-27, 2009, in Nancy, France. Paper submission deadline is February 1, 2009. For more information, contact Program Chair Minoo Tehrani (Roger Williams University, Bristol, Rhode Island, USA, mtehrani@rwu.edu) or see the website at:

http://internationaldsi.org/

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### Manufacturing Management
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### Marketing/OM/IS Interface
Marketing Theory, Application & Practice Jan Bodin, ICN Business School Nancy, France Jan.bodin@icn-groupe.fr

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### Nancy, France

It is the administrative, economic, and educational center of Lorraine. Situated at the edge of the huge Lorraine iron fields, Nancy is an industrial city manufacturing chemicals, clothing, processed food, and machinery. It is one of eight cities specially targeted by the government for urban development. In the city are a noted fine arts museum, an academy of fine arts, and a large university (founded 1854).

Nancy grew around a castle of the dukes of Lorraine and became the duchy capital in the 12th century. In 1477, Charles the Bold of Burgundy was defeated and killed at the gates of Nancy by Swiss troops and the forces of René II of Lorraine. The major part of the center of Nancy, a model of urban planning and a gem of 18th-century architecture, was built during the liberal reign of Stanislaus I, duke of Lorraine (reigned 1738–66) and ex-king of Poland. Nancy passed to the French crown in 1766. In 1848 it was one of the first cities to proclaim the republic. From 1870 to 1873 it was occupied by the Germans following the Franco-Prussian War, and it was partially destroyed in World War I.

Points of interest include the Place Stanislas, the Place de la Carrière, an 18th-century cathedral, and the 16th-century ducal palace. The Church of Cordeliers (15th cent.) houses the magnificent tombs of the princes of Lorraine.

from Answers.com
http://www.answers.com/topic/nancy-1

### Nancy Sights

The Place Stanislas (see photo on next page) named after the king of Polish-Lithuanian Commonwealth and duke of Lorraine Stanisław Leszczyński, the Place de la Carrière, and Place d’Alliance were added on the World Heritage Sites list by the UNESCO in 1985.

The “École de Nancy,” a group of artists and architects founded by the glassmaster and furniture maker Émile Gallé, worked in the Art Nouveau style at the end of the 19th century and the early 20th century. It was principally their work which made Nancy a centre of art and architecture that rivaled Paris and helped give the city the nickname “Capitale de l’Est.” The city still possesses many Art Nouveau buildings (mostly banks or private homes). Furniture, glassware, and other pieces of the decorative arts are conserved at the Musée de l’École de Nancy, which is housed in the 1909 villa of Eugène Corbin, a Nancy businessman and supporter of the Art Nouveau there.

from Wikipedia
IJOQM seeks articles for a special issue on “Improving Productivity through Effective Scheduling.” This special issue of IJOQM is dedicated to investigating how to make scheduling to become more competitive in today’s highly competitive business environment. All papers involving basic, applied, theoretical and case study research in the field of scheduling are invited. Guest editor is Dr. Ceyhun Ozgur, Valparaiso University (ceyhun.ozgur@valpo.edu). Submission deadline is October 1, 2008.

The Place Stanislas in Nancy, France, was added to the World Heritage Sites list by the UNESCO in 1983.
OFFICERS’ NOMINATIONS

The Institute’s 2008-09 Nominating Committee invites your suggestions for nominees to be considered for the offices of President-Elect, Treasurer, and Vice Presidents elected at-large to serve on the Institute’s Board of Directors, beginning in 2010.

Your recommendations should include the affiliation of each nominee, the office recommended for the nominee, and a brief statement of qualifications of the nominee. If you would like to recommend persons for the offices of Vice Presidents elected at-large to serve on the Asia Pacific, Mexico, Midwest and Northeast regions, please indicate so on the form below. These names will be forwarded to the appropriate regional nominating committee chair.

Please send your recommendations by no later than October 1st to the Chair of the Nominating Committee, c/o the Decision Sciences Institute, Georgia State University, J. Mack Robinson College of Business, University Plaza, Atlanta, GA 30303.

The Nominating Committee is most appreciative of your assistance.

OFFICER

Nominee’s Name & Affiliation

Statement of Qualifications

Nominator’s Name & Affiliation

FELLOWS’ NOMINATIONS

The designation of Fellow is awarded to active supporters of the Institute for outstanding contributions in the field of decision sciences. To be eligible, a candidate must have achieved distinction in at least two of the following categories: (1) research and scholarship, (2) teaching and/or administration and (3) service to the Decision Sciences Institute. (See the current list of DSI Fellows on this page.)

In order for the nominee to be considered along with a letter of nomination which highlights the contributions made by the nominee in research, teaching and/or administration and service to the Institute. Nominations must highlight the nominee’s contributions and provide appropriate supporting information which may not be contained in the vita. A candidate cannot be considered for two consecutive years.

This information should be sent by no later than October 1st to the Chair of the Fellows Committee, Decision Sciences Institute, Georgia State University, J. Mack Robinson College of Business, University Plaza, Atlanta, GA 30303.

Decision Sciences Institute Fellows

Adam, Everett L., Jr., Univ. of Missouri-Columbia
Anderson, John C., Univ. of Minnesota
Benson, P. George, Univ. of Georgia
Bennacef, William, Univ. of Georgia
Berry, William L., The Ohio State Univ.
Bonini, Charles F., Stanford Univ.
Brightman, Harvey J., Georgia State Univ.
Buffa, Elwood S., Univ. of California-Los Angeles
Cangelosi, Vincent*, Univ. of Southwest Louisiana
Clapper, James M., Aladdin TempRite
Collins, Rodney D., Drexel Univ.
Couger, J. Daniel*, Univ. of Colorado-Colorado Springs
Cummings, Larry L.*, Univ. of Minnesota
Lorden, William R.*, Louisiana State Univ.
Davis, K. Roscoe, Univ. of Georgia
Davis, Mark M., Bentley College
Day, Ralph L.*, Indiana Univ.
Digman, Lester A., Univ. of Nebraska-Lincoln
Duck, V. Thomas, Maui, Hawaii
Ebert, Ronald J., Univ. of Missouri-Columbia
Edwards, Ward, Univ. of Southern California
Evans, James R., Univ. of Cincinnati
Fetter, Robert B., Yale Univ.
Flores, Benito E., Texas A&M Univ.
Fynny, Barbara B., Indiana Univ.
Franz, Lori S., Univ. of Missouri-Columbia
Groff, Gene K., Colorado State Univ.
Hayya, Jack C., The Pennsylvania State Univ.
Heineke, Janelle, Boston Univ.
Hershauer, James C., Arizona State Univ.
Honowitz, Ira, Univ. of Florida
Houck, Ernest C.*, Virginia Polytechnic Institute and State Univ.
Huber, George P., Univ. of Texas-Austin
Jacobs, F. Robert, Indiana Univ.
Jones, Thomas W., Univ. of Arkansas-Fayetteville
Kendall, Julie E., Rutgers Univ.
Kendall, Kenneth E., Rutgers Univ.
Keown, Arthur J., Virginia Polytechnic Institute and State Univ.
Khamusawat, Basheer M., Univ. of Houston
Kim, Kee Young, Yonsei Univ.
King, William R., Univ. of Pittsburgh
Klein, Gary, Univ. of Colorado, Colorado Springs
Koehler, Anne B., Miami Univ.
Krajewski, Lee J., Notre Dame Univ.
LaMorga, Lawrance, James Madison Univ.
Latta, Carol J., Georgia State Univ.
Lee, Sang M., Univ. of Nebraska-Lincoln
Lutthans, Fred, Univ. of Nebraska-Lincoln
Mabert, Vincent A., Indiana Univ.
Mallotra, Manoj K., Univ. of South Carolina
Malhotra, Naren K., Georgia Institute of Technology
Markland, Robert E., Univ. of South Carolina
McMillan, Claudie, Univ. of Colorado at Boulder
Miller, Jeffrey G., Boston Univ.
Monroe, Kent B., Univ. of Illinois
Moore, Laurence J., Virginia Polytechnic Institute and State Univ.
Moskowitz, Herbert, Purdue Univ.
Narasimhan, Ram, Michigan State Univ.
Neter, John, Univ. of Georgia
Nutt, Paul C., The Ohio State Univ.
Olson, David L., Texas A&M Univ.
Perkins, William C., Indiana Univ.
Peters, William J., Univ. of New Mexico
Philippatos, George C., Univ. of Kentucky
Raina, Howard, Harvard Univ.
Rakes, Terry R., Virginia Polytechnic Institute and State Univ.
Reimnuth, James R., Univ. of Oregon
Ritzman, Larry P., Boston College
Roth, Aleda V., Clemson Univ.
Sanderson, Nada, Texas Christian Univ.
Schrade, Lawrence L., Univ. of Texas at Arlington
Schniederjans, Marc J., Univ. of Nebraska-Lincoln
Scribner, Thomas J., Univ. of Michigan
Schoo, Roger G., Univ. of Minnesota
Simone, Albert J., Rochester Institute of Technology
Slocum, John W., Jr., Southern Methodist Univ.
Sobel, Marion C., Southern Methodist Univ.
Seo, Nancy, Univ. of Denver
Sprague, Linda G., China Europe International Business School
Steinberg, Earle, Touche Ross & Company, Houston, TX
Summers, George W.*, Univ. of Arizona
Tang, Kwok, Purdue Univ.
Taylor, Bernard W., III, Virginia Polytechnic Institute and State Univ.
Trowell, Marvin D., Kent State Univ.
Utah, Kenneth P.*, Univ. of Illinois
Vazquez, Andrew*, Univ. of San Francisco
Voss, Christopher A., London Business School
Wasserman, William, Syracuse Univ.
Wemmerlöv, Urban, Univ. of Wisconsin-Madison
Wheelwright, Steven C., Harvard Univ.
Whitten, Betty J., Univ. of Georgia
Wise, Barry R., Clay. Univ. of North Carolina-Chapel Hill
Wicklund, Gary A., Capricorn Research
Whybark, D. Clay, Clay. Univ. of North Carolina-Chapel Hill
Woolsey, Robert E, Duke Univ.
Wright, Robert E., D. Clay. Colorado School of Mines
Wrightman, Max S., Jr.*, Iowa State Univ.
Zmud, Robert W., Florida State Univ.
* deceased
**DECISION SCIENCES INSTITUTE**

**2008 Annual Meeting Registration Form • Baltimore, Maryland • November 22-25, 2008**

All attendees must register for the meeting. Conference registrations must be postmarked by October 27, 2008, to avoid a late fee of $50. After October 27, requests for cancellation refunds will not be accepted. Mail form and payment for the registration fee to: Decision Sciences Institute, J. Mack Robinson College of Business, University Plaza, Georgia State University, Atlanta, GA 30303, fax 404-413-7714.

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<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<td>Mon. (11/24)</td>
<td>Accounting</td>
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<tr>
<td>Tues. (11/25)</td>
<td>Academic Administration</td>
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<td>Wed. (11/26)</td>
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<td>Sun. (11/23)</td>
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<td>Tues. (11/25)</td>
<td>Managerial Problem-Solving</td>
<td>Managerial Problem-Solving</td>
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<tr>
<td>Extra Tuesday’s awards luncheon(s) @ $48 each</td>
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<tr>
<td>Extra Sunday’s luncheon(s) @ $48 each</td>
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<td>After October 27, 2008 (LATE FEE)</td>
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**Member and non-member fees for all registration categories**

Include Sunday’s luncheon, Monday’s reception, Tuesday’s luncheon and online access to the Proceedings. The Annual Meeting Proceedings will be produced online after the meeting is held. The Proceedings will consist only of submissions accepted and presented at the 2008 DSI Annual Meeting.

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Regular Membership $125
Student Membership $25

(Student membership requires signature of sponsoring member.)

Emeritus Membership $35

Emeritus membership requires signature of member as a declaration of emeritus status.

Institutional Membership $125

(Institutional membership requires designation to receive all publications and special announcements of the Institute.)

Please send your payment (in U.S. dollars) and application to:
Decision Sciences Institute, Georgia State University, J. Mack Robinson College of Business, University Plaza, Atlanta, GA 30303. For more

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For current news and activities, visit the DSI Web site at http://www.decisionsciences.org