In many respects, I still find it hard to believe that I am the president of the Decision Sciences Institute. In looking back, my career as an academic has paralleled in many ways my involvement in the Decision Sciences Institute.

It was 25 years ago this spring that I was first introduced to the Decision Sciences Institute. I was a doctoral student at Boston University while working fulltime as a programs manager at the U.S. Army Natick Laboratories in Natick, Massachusetts. Mike Maggard, one of my professors at BU, called and asked me to give a presentation at the Northeast Regional DSI Meeting, which was being held at the Lenox Hotel in Boston.

When I received my DBA in 1986, one of the conditions of my accepting a position at Bentley College was that my trip to the DSI conference that year be funded (not unlike a signing bonus), which, by the way, was being held in Hawaii. Bentley agreed and I have been at the annual meetings ever since.

I suggested to John Saber of Babson College, who was the 1988 program chair for the Northeast DSI Meeting, that he add a service operations track. He did, appointing me as the first service operations track chair for a NEDSI meeting. Later, as president of NEDSI, John asked me to be the program chair for the 1992 NEDSI Meeting in Boston.

It was at the 1992 DSI Meeting in San Francisco that I literally bumped into Dick Chase and Dick Hercher of McGraw-Hill/Irwin in the lobby of the Hyatt Regency Hotel, which subsequently led to my being brought on as a co-author of a textbook in operations management.

In more recent years, it has been through the colleagues that I have met at DSI meetings over the years that I have been invited to teach/present at various business schools around the world, including those in Spain, France, Australia and Japan.

DSI has always been my primary professional organization of choice, at the regional level, at the national level and
FROM THE EDITOR

G. Keong Leong, Management Department, University of Nevada, Las Vegas

W e offer our best wishes to Professor Mark M. Davis, Bentley University, as he assumes the Presidency of the Institute. In his opening letter, he identifies two major objectives for the coming year: (1) “continue to improve communications between the Institute and its members” and (2) enhance the value of being a DSI member.” He notes that accomplishing these objectives involve redesigning the DSI Homepage, improving the Conference Information System, and creating more miniconferences/workshops.

The first article entitled “An Interactive VBA Tool for Teaching Statistical Process Control (SPC) and Process Management Issues” by Professors Jaydeep Balakrishnan and Sherry Oh, University of Calgary, Canada, is one of the 2005 DSI Instructional Innovative Award Competition finalists. The interactive Excel VBA Tool allows students to learn by investigating various issues affecting SPC. The tool is designed for use in MBA programs, executive programs, and advanced quality management courses. The Instructor’s Manual, Student Lab Manual, and software are available on line for free download.

Professor Farhad Moeeni, Arkansas State University, in the P/OM Column, discusses the current excitement about the use of Radio Frequency Identification (RFID) in the supply chain. Wal-Mart, Target, and Best Buy are examples of retailers who have implemented this technology. The challenges that businesses face in adopting the RFID technology are cost and privacy issues.

Professor Rick Hesse, Pepperdine University, presents a simple PERT simulation example of turning around an airplane. The PERT exercise in Excel involves probabilistic activity times which are normally distributed. Other distributions such as Beta and Triangular can be incorporated but may involve using Crystal Ball or @Risk. The Excel exercise is available on-line.

Business schools have long recognized the importance of including ethics within the business curriculum. However, there is less agreement on how business ethics should be taught. In The Dean’s Perspective column, we provide two insights into the teaching of business ethics. The first article is by Professor Tilden J. Curry, dean of the College of Business, Tennessee State University. The second article, which provides a department perspective, is co-authored by Professors David Krause and Sarah Peck, both from Marquette University.

In the Doctoral Student Issues column, Professors Gary F. Templeton and Kirk P. Arnett of Mississippi State University encourage doctoral students to form an adaptive network, which they define as “an interpersonal network subject to change in culture, productive nature, structure of those who participate, and other characteristics.” They find that students who adopt this strategy at Mississippi State University are more productive.

Finally, Professor Linda G. Sprague, China Europe International Business School, Shanghai, China, reviews a new textbook, Outsourcing and Insourcing in an International Context, by Marc J. Schniederjans, Ashlyn M. Schniederjans & Dara G. Schniederjans and published by M.E. Sharpe in 2005. She notes that most of the book’s coverage is on outsourcing, with much less emphasis on insourcing. Overall, her review indicates that the book meets its objectives and raises the key issues that firms must consider if they choose to outsource. Have a wonderful summer!

G. Keong Leong

is professor and chair of the Management Department in the College of Business, University of Nevada, Las Vegas. He holds a Bachelor of Engineering from the University of Malaya, an MBA and a Ph.D. from the University of South Carolina. Professor Leong has held leadership positions in Decision Sciences Institute such as at-large vice president, Doctoral Student Consortium coordinator, Instructional Innovation Award Competition coordinator, and POM track chair. He has published articles in Decision Sciences, Journal of Operations Management, Interfaces, Journal of Management, and other journals. His current research interests include international operations, operations strategy, technology management, and supply chain management. Professor Leong has co-authored two books, won teaching and research awards, and received the Educator of the Year award from the Asian Chamber of Commerce in Las Vegas.

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An Interactive VBA Tool for Teaching Statistical Process Control and Process Management Issues

by Jaydeep Balakrishnan and Sherry Oh, Haskayne School of Business, University of Calgary, Calgary, Alberta, Canada

With a global emphasis on improved quality, Statistical Process Control (SPC) is an important process management tool with renewed significance. In order to address this issue, we have developed an interactive VBA Tool for teaching SPC and process management issues. Students can experiment with the tool to interactively examine the various issues that affect SPC and gain insight into the important issues in managing a process. The graphical nature of the interface should allow students to visually see the effect of changes in process parameters. A detailed Instructor's Manual and a Student Lab Manual accompany the software.

Introduction

With a renewed emphasis on managing processes in Operations Management (OM), discussion of Statistical Process Control (SPC) is often included as an integral part of the OM course. Also, what was once thought of as a statistical tool used mainly for production control in manufacturing has now achieved mainstream status in an increasing number of Fortune-500 companies (including service-based) adopting Six Sigma methodologies. At the same time, a review of the relevant literature revealed the need for an interactive teaching tool that could be used to enhance the effectiveness in teaching SPC concepts.

Thus the focus of our approach is to give students a better understanding of SPC, Process Capability, and process management issues through the use of an interactive Excel VBA based tool. While use of the entire tool is targeted toward mature students in MBA programs, executive programs, and students taking advanced quality management/control courses, parts of the tool may be used even in introductory courses at the undergraduate level. For example, the authors use the Process Capability and the Type I/II error sections of the tool in their introductory undergraduate Operations Management course in the business school.

The goal is to help teach both process control and process capability concepts and, through it, process management principles. The following concepts are explored through guided use of the teaching model: (1) false out-of-control and false in-control indications, (2) the role of reduced variability on improved process control, (3) process capability, (4) the role of reduced variation in ensuring better process capability, (5) Six Sigma, (6) understanding the role and differences between control and specification Limits, and (7) information from control charts.

Innovative and Unique Features

The tool uses MS Excel/VBA. The choice of using VBA was natural as the mathematical calculations are handled easily and it allows for modifications to be made quickly by anyone with access to Excel on their computer. The

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is an associate professor of operations management at the Haskayne School of Business. He has a PhD from Indiana University, an MBA from the University of Georgia, a BE (Mech) from Nagpur University, India, and is CPIM certified. He has been a visiting faculty member in Hong Kong and Singapore and has taught globally. His research interests include facility layout and supply chain management. He is an author (with M.M. Davis, N.J. Aquilano and R.B. Chase) of the textbook Fundamentals of Operations Management, published by McGraw-Hill Ryerson in 2004.

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Sherry Oh

is an instructor in operations management at the Haskayne School of Business and is currently on leave while completing her PhD in industrial engineering at the University of Toronto. She is an MBA (Thesis) graduate from the University of Toronto. She also has degrees in education (B.Ed.) and industrial engineering (B.A.Sc.) from the University of Toronto. Her current research is focused on the area of health care operations as she strives to help find solutions that recognize the dynamics and the interdependencies within a publicly funded health care system, having already done projects recently in both Ontario and Alberta.

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graphical demonstration could be achieved with a package such as FLASH, but the interactive nature of the tool would have been more difficult to achieve as so much of the graphics are based on user inputs and subsequent calculations. The tool is thus very easy to use and at the same time provides visual representations of SPC and process capability. Figures 1, 2, and 3 show the screens that the user is provided with. The example is one of a call center. These are explained later in the document.

Content
An effective teaching tool will help transform business questions into a theoretical framework and then link that theory back into practice. This tool addresses managerial issues in SPC and Process Capability. While most textbooks address the mechanics of SPC, that is, creating process control charts, as managers, what is equally or more important is the managerial issues surrounding the use of control charts and managing the process. We are not aware of any other computer based interactive tool that has similar functionality.

Through this tool we believe students will attain a better understanding of issues such as: How does increasing the z-value impact the frequency of unnecessary process stoppages or the amount of time out-of-control processes remain undetected?; How does focusing on training employees and better equipment improve the control of the process; and What is the difference between a control limit and a specification limit? The value in this tool is that these and other managerial issues in SPC can be investigated using one tool in an interactive manner. For example, if one were to ask the question, **Why does the Type II error decrease with greater shifts in the process mean?**; with the click of a button using the VBA tool, students can see that the overlap between the distributions decreases, thus understanding why there is a decreased probability that a sample reading from one distribution will be mistakenly assumed to be from the other.

We believe that it is important to focus our innovative efforts on SPC because it is one of the more difficult concepts for students to comprehend. The theory behind SPC is based on probability and statistics, courses in which many business students are not known to excel, or have great interest. Thus, concepts such as process control limits and process capability, often taught back-to-back, are frequently confusing for many students. Similarly, explaining the effect of different z values on errors and the interpretation of sample statistics is difficult without simulating actual process measures. While the issues can be discussed with manual visual aids, using a board or overhead, an interactive computer tool is much quicker and more effective.

Pedagogy
The tool consists of three parts: an Instructor’s Manual, a Student Lab Manual for students to work through, and the software. The Instructor’s Manual explains the VBA tool and the issues that can be addressed using the tool. It is expected that the instructor would be projecting the software image on a screen in the classroom. The Student Lab Manual is a detailed step-by-step series of exercises so that the students can follow the instructor interactively, with space in it for them to take notes about the results of each exercise and class discussion. The manual and the software can be posted on websites so that students can download them and work through them outside the classroom if necessary. The instructor version of Student Lab Manual has also been prepared where the space for student notes has been filled in with expected results and suggested discussion (shown in text boxes in Figure 4). Since all the documents accompanying the VBA tool are in MS Word, they can easily be modified to the instructor’s preference.

Each section in the manual addresses a different aspect of SPC or process capability. Thus, the instructor can choose to omit one or more of these sections depending on the topics covered in the particular course. The user can also specify the particular process management problem that is being addressed. In the example provided in Figures 1 through 3, the issue is with the management of the time a customer is put on hold before being attended to at a call center. The user can specify any situation through the Process Parameter box shown in Figure 1.

In each section the student can work through the different options provided by the instructor and graphically see the results. In Figures 2 and 3, each time the user hits the Generate Sample (or single observation) button, a value (sample mean or individual value) is generated from the normal distribution. Figure 2 shows an instance where the sample mean is within the control limits. If the value falls outside, it is shown as a red square. Thus, the user can generate multiple calls graphically to get a feel for the nature of the process. For example, in Figure 2 it is seen that a Type II error has occurred—the process is out of control (because the actual or current mean is different from the planned mean as shown in Figure 1), whereas the sample mean falls within the limits.

In Figure 3, given the particular situation, generating multiple observations will result in the conclusion that more than the expected number of defectives (based on the planned process) will be generated because of the shift in the process mean. It is also seen from Figure 3 that the process is a "1.2σ" process. This is related to the concept of Six Sigma.

The students can use the Lab Manual (Figure 4) to work through the exercises and note the results. The instructor can then use these results as a lead-in to more fundamental process management issues. For example, in Figure 2, a question might be: **Given the high likelihood of a Type II error, how does a manager reduce this?** This could lead into a discussion about the advantages and disadvantages of increasing sample size to reduce Type II errors.
Further, the role of reduced $\sigma$ in decreasing Type II error can be discussed, including questions such as: *How can we reduce the process variation?* This would give students an opportunity to better understand the value of reduced variability and process improvement through aspects such as training and technology.

**Conclusion**

While SPC, process capability, and process management in general are becoming increasingly important topics, they also are among the more difficult to teach. Further, it is generally accepted that experiential learning enhances student understanding and experience. Technology provides an excellent vehicle for demonstrating hard to visualize concepts such as process management and does so in an experiential manner. Thus, we believe that the tool will be effective in helping students understand the more fundamental concepts behind SPC, process capability, and process management. One caveat in using the VBA tool is to ensure that the setup of the software is clearly explained and students are given adequate time to work through exercises during class. It can be frustrating for students if they do not follow what is going on or have missed a previous concept that the current example builds on because adequate time was not provided. Colleagues who have used all or parts of the tool have felt that it was effective in improving instruction.

Since the tool focuses on topics such as SPC, process capability, and process management issues, important to organizations everywhere, we feel that it is easily transferable globally. Instructors may use local issues in discussing process improvement in a regional context but the basic principles...
Set $n = 1, z = 1$. Click the Generate Sample button. This generates a sample and calculates the sample mean. Since the sample size is 1, the mean is just the individual value. This value is shown on the bottom right of the chart, and it is represented as a green dot if within the UCL and LCL and as a red square if outside the UCL and LCL. (Note: A sample size of one would usually not be used for SPC in practice, but required for the purpose of this demonstration.)

Click it a few more times until you get a red square. In practice, if you were managing this process what would you do when you get a red square?

You would stop the process to investigate the cause of a sample mean outside the UCL/LCL.

Does the call on hold violate company guidelines (defective)?

Probably not... a red square is displayed if the generated value exceeds 11.5, while it would need to exceed 15 minutes in order to be ‘defective’.

**Figure 4: Annotated student lab manual.**

of SPC and process capability are universal. Further, since the tool is based on MS Excel, which is used worldwide, we do not see any technical issues with its transferability.

**Acknowledgement.** The authors wish to thank their colleague Janice Bodnarchuk Eliasson and Tom Grossman of San Francisco State University for their comments on this article. Financial support was provided by the Natural Sciences and Engineering Research Council of Canada.

**Online Resource**


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**Decision Line Editor Vacancy**

Nominations are being solicited for the editorship of *Decision Line* for a three-year term of service to officially begin on January 1, 2008. A description of the position and the responsibilities of the editor are presented below.

*Decision Line*, published five times per year, is the official news publication of the Decision Sciences Institute. It provides a channel through which members are informed of the activities of the Institute; it is a method of notification of administrative and organizational actions; and it provides an opportunity to call for papers for various meetings. It provides articles in areas of general interest to the members, including promoting innovation in teaching, research and scholarship, professional development globalization, and interdisciplinary activities. It also includes annual meeting notes and details, briefs on placement activities, and recognizes achievement of individual members.

The objectives of *Decision Line* are to: (1) serve as a means of communication among the members of the latest developments in the Institute; (2) serve as a formal notice of the Institute’s activities; (3) provide a forum for opinions, discussions, and philosophical statements regarding goals; (4) be a means of keeping abreast of the latest developments within the discipline; (5) be a research clearinghouse to encourage participation among members of unpublished research; (6) and cover news of a personal nature regarding the members, i.e., promotions, retirements, etc.

The editor of *Decision Line* serves at the pleasure of the Board of Directors of the Institute for a three-year term and may be renominated and reapointed by the Board of Directors for a second three-year term. The editor is responsible for the editorial content of *Decision Line*, subject to monitoring by the Publications Committee of the Institute.

See EDITORSHIP VACANCY, page 41
From Light Frequency Identification (LFID) to Radio Frequency Identification (RFID) in the Supply Chain

by Farhad Moeeni, Arkansas State University

Conceivably one of the most successful technologies in the history of retail supply chain has been bar code identification along with the Universal Product Code (UPC) symbology and numbering system (Larurer). The first item with a UPC bar code, taken to a cashier for scanning by a customer, was a 10-pack of Wrigley’s Juicy Fruit chewing gum. It happened on June 26, 1974, at Marsh’s supermarket in Troy, Ohio. Which retail store will make a similar historical hallmark with respect to radio frequency identification (RFID) and Electronic Product Code (EPC) in the U.S.? Answering this question is hard because there are many technological as well as social obstacles that should be resolved first. Perhaps a more sensible question to ask is how would the RFID technology evolve, will RFID offer a strategic advantage for adopters, and where is the ROI?

For a meaningful analysis, one needs to understand the current status of automatic identification technologies and the corresponding standards as they relate to supply-chain applications. They include bar coding (Exhibit 1), Global Trade Item Number (GTIN, a superset of UPC) (Exhibit 2), RFID (Exhibit 3), and EPC (Exhibit 4).

Understanding bar coding may also help better anticipate the future of RFID. Interestingly, from a technological standpoint, both rely on the electromagnetic (EM) energy for data transmission. Bar coding uses light or infrared frequencies, but RFID uses radio or micro-wave which has lower frequencies than light in the EM spectrum. Using an analogy similar to RFID, we may refer to bar coding as light frequency identification, or LFID, which inspired the title of this article. LFID seems to be more meaningful and inclusive than bar coding as Exhibit 1 indicates because some of the so-called “bar code” symbologies do not have bars; they have dots instead.

Automatic Identification

Automatic identification (or auto-id) means identifying, capturing, and transferring data to a PLC, microprocessor, computer or network by means other than keyboard or manual notation. Several technologies have been developed over the decades to include bar coding, magnetic stripe, IC or smart card, RFID, biometric scanning, and many others. Some technologies such as magnetic stripe, IC cards, and biometric scanning are suitable for identifying and processing people, and some others are mainly used for physical objects (including animals) such as bar coding and RFID.

The initial benefits of auto-id technologies are the accurate and timely identification and data collection. However, the ability, ease, and low cost of collecting masses of data in real time should potentially enable organizations to produce unprecedented levels of business intelligence. Figure 1 compares the traditional methods versus the auto-id data entry (Fales, 2005).
As the figure indicates, every activity in the traditional data entry process (solid boxes) is an opportunity for error due to human intervention in significant ways. Only auto-id data entry (the dashed box) such as bar code or RFID scanning is error-free because either the scanning process does not need human touch (e.g., bar code or RFID scanning of items on conveyors) or human intervention occurs in an insignificant manner (e.g., pointing a laser scanner at a bar code label). By referring to the figure, one may also compare the efficiency of updating a database in the traditional versus the auto-id environment. Note that the dashed box can represent a bar coding or an RFID system.

While I’m not aware of any published research article that quantifies the amount of time saved or errors prevented when an auto-id technology replaces the manual keying, experts believe that both are significant. One unpublished study (Fales, 2005) indicated that in a laboratory environment, bar code scanning produced one error in three million labels scanned. On the other hand, undetected error by good typists amounted to an average of one character per 300 characters typed. Another benefit reported by practitioners is that the point-of-sale (POS) implementation of bar coding within grocery stores reduced the number of checkout stations roughly from 13 or 14 to about 8 or 9. Experts generally believe that the payback period of implementing bar code technologies in most cases is a few months.

The Current Excitement over RFID

The RFID technology has been used in niche applications for more than 20 years. These applications use proprietary technologies and are closed-loop for they do not interact with other systems or adhere to any broad-based standards. Successful examples include access control, highway toll payment, real-time locating systems, and many others. Depending on applications, various frequency bands and tag types such as passive, semi-passive or active (Exhibit 3) are used.

What is new is the massive use of an open RFID system for supply chain transactions. The wide-spread excitement over the RFID technology began in 2003 when Wal-Mart issued a mandate to its top 100 suppliers to affix RFID tags to cases and pallets by 2005. The requirement has since been extended to several times that number and a deadline of 2007. Other companies such as Target, Best Buy, Tesco and Metro, some government agencies, and several others also devised their own plans to implement RFID within their supply network.

It is natural, in my opinion, for Wal-Mart to be the torch bearer of RFID experiment among U.S. retailers. First, Wal-Mart mastered the use of bar code technology for a near real-time sharing of its POS transactions to backrooms, distribution centers, logistic systems, and suppliers. The use of RFID is an extension of that vision. Second, Wal-Mart does not face a total financial risk for experimenting with the RFID technology. It invests only in readers and infrastructure. Suppliers pay for the cost of tags, which is a significant and recurring part of the total cost.

It is also up to the suppliers to generate ROI by using the tags and its data within the internal operations. While the search for identifying a business case and ROI continues, most suppliers have adopted a “slap-n-ship” policy just to comply with the customers’ demand.

Besides the lack of sound business cases, major drawbacks of implementing RFID included high system cost, especially for tags, and lack of standards. Paradoxically, the cost of producing tags would go down only if the consumption went up. In my opinion, the pilot RFID implementation by first-movers broke this potential deadlock to some extent. In addition, the ratification of the first global tag standards for the supply chain in late 2004 eliminated another major source of uncertainty. This stimulated a segment of the technology sector including tag producers, reader manufacturers, software companies, system integrators, consultants, and education/training organizations. Many technology giants such as TI, IBM, Microsoft, Sun, SAP, Oracle and many others have since entered the market or expanded their ongoing activities.

It is interesting to know that bar coding implementation in the retail supply chain faced a similar uncertainty thirty years ago but for different reasons. Certainly, standards were not a hurdle because the UPC standards were in place before the first retailer adopted the technology. Even though the cost of bar code scanners and their primitive technology and effectiveness were perhaps comparable to the RFID readers today, bar code labels were cheaper 30 years ago compared to the price of tags today. Nonetheless, bar coding technology

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**Figure 1: Comparing the traditional and the automatic identification data entry.**
Bar coding systems

Major components include scanners and labels. Scanners use one of several technologies such as laser or charge-coupled device (CCD). The label stores data in the form of bars and spaces of various widths printed or etched on paper, metal, etc. Bar code languages are called symbology. Each symbology has a unique pattern of bars and spaces for encoding data. Some symbologies such as UPC (note that UPC is also a numbering system) only encode numbers and some can encode the entire ASCII characters set such as Code 128.

Two dimensional symbologies provide substantial data capacity. One type uses multiple rows of very short linear bar codes stacked on top of each other, e.g., PDF 417. Another type uses dots, instead of bars, in a matrix structure, e.g., Aztec and Data Matrix. Composite symbology combines linear and 2-D symbologies into one label. The need to store more data and limited space on pharmaceutical and electronic components motivates the technology.

Scanners read labels by illuminating them and then analyzing the spectrum of the reflected light for patterns, intensities, and duration. After a successful read, most scanners supply the decoded data in the form of ASCII characters to the host applications. Bar code scanners are programmable to read various symbologies and to perform data filtering.

Exhibit 1: Components of bar code systems and symbologies.

faced a “chicken-or-egg-first” phenomenon, too. Manufacturers were reluctant to affix bar code labels on products when retailers did not have bar code scanners. Retailers, on the other hand, were reluctant to invest in scanners when products didn’t have bar code labels.

Automating the Supply Chain

The EPC initiative is based on an idea originated at the MIT’s Auto-ID Center to create an “internet of things” similar to the Internet of computers, which all electronic devices are networked and every object, whether it is physical or electronic, is electronically tagged with information pertinent to that object. The realization of our vision will yield a wide range of benefits in diverse areas including supply chain management and inventory control, product tracking and location identification, and human-computer and human object interfaces. [Sarma et al, 2000]

The goal has been to automate identification of physical objects and products and sharing of data about them throughout the supply chain. Several other universities around the world, along with a large number of sponsors ranging from technology users to technology providers, and standard organizations also joined the effort for the global deployment. A coalition of the Auto-ID center, the Uniform Code Council, users group, and technology developers has been named EPCglobal to oversee the development of the EPC network and standards.

As a part of the EPC network, RFID readers are responsible for discovering RF tags, which are in their EM field, and report their EPC numbers to the host application. It is assumed that the EPC number of the tag accurately identifies the item, case, or pallet that it is attached to. The host application then issues a query to search a database for retrieving the product information. This process is identical to the current retail bar coding systems. The UPC (GTIN) and the EPC numbers act as pointers to information stored in a database. One distinction is that the EPC numbering system allows mass serialization of consumer-level items which is not possible under UPC or GTIN (see also Exhibit 2 for SGTIN). For example, two identical bottles of shampoo can have different identities under EPC.

Another difference is that in the current UPC system, the information is usually contained in a local database. When EPC network is operational, the information can be anywhere on the Internet. If the local database does not have the product information associ-
ated with an EPC number, a systematic and hierarchical search is automatically performed to find the information and to update the local database. Thus, the EPC network architecture relies on an elaborate infrastructure, including the Internet, to facilitate such flexible, scalable, automatic, and distributed information sharing mechanism (Exhibit 4), allowing organizations to trace and track items perpetually.

RFID versus LFID

In my opinion, the role of RFID in the EPC network will evolve in two phases. The two phases map to the class definition (Engles et al, 2005) as presented in Exhibit 5. Note that there are no complete specifications or ratified standards for class 2 and above.

Phase one corresponds to the capabilities of Class 1 tags. This class defines minimum functionality such as passive backscatter and limited memory to minimize the tag cost. In this phase, RFID primarily acts as “electronic bar code” and attempts to replace current bar coding applications by offering increased efficiencies. At this level of functionality, RFID readers read, filter, and pass EPC numbers to the host application. How to use the data intelligently after it is captured is independent of the data capturing method. In other words, it doesn’t matter how the EPC number is collected, either through an RFID, a bar coding system, or something else. Note that Code 128 or 2-D symbologies (Exhibit 1) can encode EPC numbers as bar code labels.

The most important features that favor RFID in this contest with bar code include an additional level of automation by reading multiple tags almost simultaneously, eliminating the need for operators and line-of-sight. The most important features that favor bar coding, on the other hand, include highly developed and mature technology, well accepted standards, and cost. Bar code labels are almost free.

Phase Two corresponds to Class 2 tags and beyond (Exhibit 5). These classes of tags create functionalities outside the current capabilities of bar coding. Most imaginative and unprecedented applications of RFID systems are expected to happen during this phase. Many researchers are envisioning a time that ubiquitous low-powered networks of RFID readers and active and semi-passive tags are integrated with all kinds of sensors. Through the Internet, they share and report digital data from temperature and air quality at a particular intersection to the expiration date of a given bottle of milk to the imminent failure of a pacemaker and the location of the patient to the nearest ambulance.

Regardless of the phases and tag functionalities, RFID may not completely replace bar coding in the foreseeable future. There are certain products such as jet turbine blades that must operate in extreme temperatures. The size, form factors, or materials used in the manufacturing of current tags do not make them suitable for such application. On the other hand, it is possible to engrave bar codes directly on such products using laser technology. RFID technology will dominate some applications, bar coding will dominate certain other applications and, in the majority of applications, the two technologies will coexist on the same physical object.

Where is the ROI

Making a business case for bar coding to substitute manual data entry has relatively been obvious (Figure 1). Yet, it took years for many companies to gradually adopt bar code technology. In many cases, the customer (such as Wal-Mart) forced some suppliers to affix bar code labels on their products. There are many countries, companies, and applications yet to adopt bar code technology. For example, the healthcare sector has been very slow in the widespread use of bar coding within the patient-care system, even though thousands of lives are lost every year due to medical errors.

On the other hand, making a business case for RFID may not be so obvious, at least at the moment. In the only known large-scale research experiment (Hardgrave et al, 2005), it took seven months of data collection, 24 Wal-Mart stores (12 with RFID implementation and 12 without), and substantial resources to investigate a potential business case for RFID. Without disclosing any cost-related information, the preliminary results showed that RFID-en-

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**RFID systems**

Major components include readers and tags. Readers have radio transmitters and receivers, processors, and memory. They also have antennas. Readers communicate with tags through antennas in order to read data from or write data to tags. A tag also has antenna and a tiny microchip with memory, processor, and communication circuitries.

Reading mechanism depends on the type of tags. Active tags carry their own power source and broadcast their own signals to communicate with readers. Passive tags, on the other hand, should be within the EM field of the reader’s antenna in order to receive sufficient power for broadcasting data. This transmission mechanism is known as passive backscatter. Semi-passive tags contain a tiny battery for logging the data received from connected sensors. These tags also use passive backscatter method to communicate and transfer the logged data to readers. Supply chain applications of RFID systems currently focus on passive tags that operate in the UHF band (860-960 MHz). Readers are programmable and can perform a variety of data filtering.
abled stores had much fewer numbers of shelf out-of-stocks. More analysis may be needed to assess what proportion of the improvement could be attributed to RFID, and what portion to the process change. Further analysis is also needed to determine whether or not bar coding could be used instead of RFID.

To produce reasonable ROI, many technological challenges should be resolved. Components of the EPC network are under development and no standards yet exist except for C1G2 tags. The technology is very primitive but evolving. One hundred percent tag read rate, in every situation, is ambitious because metal and liquid (not favored by UHF radio band) are commonly present in products, especially grocery items. On social issues, public concerns and debates on the right to privacy may be delayed indefinitely as long as RFID remains out of the sales floor and behind the impact doors of retail stores.

On the positive side, Moore’s law favors RFID. The cost of UHF tags has continuously declined and the capability of readers has improved over the last few years. The business value of RFID is expected to increase when the EPC network becomes operational. The value of the EPC network itself will increase, according to Metcalfe’s law, as more organizations join the network. It is hard to believe that, for gaining strategic advantage, the original sponsors of the EPC network would prevent others to join. Like any infrastructural technologies (railroad, Internet, etc.), EPC network would offer far more value when shared than when used in isolation (Carr, 2003). Transforming masses of shared RFID-generated data into knowledge would be the key to creating strategic advantage.

Conclusion

RFID is only one technology within a family of technologies generally known as automatic identification or auto-id. Academia in general and business schools in particular have not included auto-id related topics within their curricula. The current market excitement over RFID has stimulated some busi-
ness schools. This is a great opportunity for business faculty, in general, and those who teach and research IT, IS, and operations, in particular, to pay more attention to the integration of these technologies not just to the RFID in isolation.

References

Aim, Association of Automatic identification and Mobility (http://www.aimglobal.org/).


GS1-US (http://www.gs1us.org/gs1us.html).


---

<table>
<thead>
<tr>
<th>EPC Class</th>
<th>Functionality</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 0</td>
<td>“RO” passive backscatter</td>
<td>Programmed as part of the semiconductor manufacturing process</td>
</tr>
<tr>
<td>Class 0+</td>
<td>“WORM” passive backscatter</td>
<td>Programmed once by the customer then locked (practically, they can be reprogrammed; we have reprogrammed them in the lab). Gen 2 has 32 bits of memory at the discretion of user</td>
</tr>
<tr>
<td>Class 1</td>
<td>“WORM” passive backscatter</td>
<td></td>
</tr>
<tr>
<td>Class 1 – Generation 2 (UHF Gen2 protocol ratified by EPC Global on Dec. 16, 2004)</td>
<td>“WORM” passive backscatter</td>
<td></td>
</tr>
<tr>
<td>Class 2</td>
<td>“RW” passive backscatter</td>
<td>Can be reprogrammed many times</td>
</tr>
<tr>
<td>Class 3</td>
<td>“RW” Semi passive (Battery backscatter)</td>
<td>Can be reprogrammed many times and can be integrated with sensors to log and transmit critical data</td>
</tr>
<tr>
<td>Class 4</td>
<td>“RW” Battery Transmitter, very high range</td>
<td></td>
</tr>
<tr>
<td>Class 5</td>
<td>Tags are also Readers</td>
<td></td>
</tr>
</tbody>
</table>

*Exhibit 5: EPC RFID tag classes.*

DSINFO

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.

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http://mailbox.gsu.edu/mailman/listinfo/dsinfo

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Jayanth Jayaram
University of South Carolina
jayaram@moore.sc.edu
PERT Simulation in Excel

by Rick Hesse, Feature Editor, Pepperdine University

COMAP (Consortium for Mathematical Applications Problems) and INFORMS have made up a simple PERT example of the time to turn around an airplane (offload passengers and baggage and then load the plane after cleaning the cabin). I use this simple example with probabilistic outcomes for activity times, and demonstrate how the critical path can vary by using the random number function in Excel and data tables.

Problem

The problem is shown in network form in Figure 1 with the mean and standard deviation (assuming normally distributed) shown on the activity.

There are only three possible paths, and they are A→B→D→E (55 minutes), A→C→E (47), and A→C→D→E (52). Activity C→D is a dummy activity, to indicate that regulations will not allow passengers to be boarded until the bags have been unloaded.

Excel Simulation

The NORMSINV (normal standard inverse) and RAND (uniform random number) functions are used to simulate the number of standard deviations from the mean for the five activities. In this case, Figure 2 shows the longest path is A→B→D→E with an expected time of 55.0 minutes but simulated time of 55.4.

<table>
<thead>
<tr>
<th>G4:</th>
</tr>
</thead>
<tbody>
<tr>
<td>=NORMSINV(RAND())</td>
</tr>
</tbody>
</table>

and copied into G5:G6 and G8:G9.

<table>
<thead>
<tr>
<th>D4:</th>
</tr>
</thead>
<tbody>
<tr>
<td>=MAX(E4-2<em>F4,ROUND(E4+F4</em>G4,1))</td>
</tr>
</tbody>
</table>

and copied into D5:D6 and D8:D9.

The formulas in column D insure that no values are less than two standard deviations below the mean.

<table>
<thead>
<tr>
<th>D10:</th>
</tr>
</thead>
<tbody>
<tr>
<td>=D4+D6+D9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D11:</th>
</tr>
</thead>
<tbody>
<tr>
<td>=D5+D8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D12:</th>
</tr>
</thead>
<tbody>
<tr>
<td>=D5+D9</td>
</tr>
</tbody>
</table>

determine each path length.

<table>
<thead>
<tr>
<th>F10:</th>
</tr>
</thead>
<tbody>
<tr>
<td>=(D10-MAX($D$10:$D$12))*C10</td>
</tr>
</tbody>
</table>

and copied to F11:F12 shows which path is longest.

<table>
<thead>
<tr>
<th>F13:</th>
</tr>
</thead>
<tbody>
<tr>
<td>=SUM(F10:F12)</td>
</tr>
</tbody>
</table>

Let us ignore G10:G12 for now.

![Figure 1. Event on activity diagram.](image-url)
Every time <F9> is pressed, the spreadsheet calculates another set of normal random numbers and conditional formatting highlights the longest (critical) path.

**Replications**

An easy way to replicate this simulation is to make up a One-way Data Table (row table) to the right to capture 50 runs. In Figure 3, the Data Table in J3:BH11 fools Excel into running the simulation 50 times, with the row input cell being J3 (or any useless cell on the spreadsheet). The values in H4:H13 give information about the 50 replications, and in this case show that Path #1 was critical 54% of the time, but that #2 was critical 28%, and #3 critical 18% of the time. The average length of time for a turnaround was 57.7 minutes (versus the longest expected 57 minutes); given the calculated standard deviation from the 50 runs (8.5), the expected probability of turning around an aircraft in 60 minutes is 60.8% while 28 of the 50 replications were 60 minutes or less. The longest time was 76.2 minutes and the shortest was 41.8 minutes. G10:G12 uses the COUNTIF statement to determine the percentages for each path being critical, with A-B-D-E being the leader with 54%. The most critical activity (see H4:H9) is Loading Passengers at 72%, so the airline should concentrate on reducing that time.

Each time <F9> is pressed, the runs 50 more runs in the data table and one more in A3:G13. It demonstrates the variability of not only each activity being critical, but each path, too. Conditional formatting is used in A4:E8 and D10:E12 to show which activities and path are critical for the single run.

![Figure 2. Simulation of airplane turnaround.](image)

![Figure 3. Replications of PERT simulation.](image)

**Other Distributions**

You may wish to change the normal distribution to a Beta distribution or the Triangular distribution, which are not symmetrical, to illustrate how they may change the results. This is a bit more complicated, and you may want to use Crystal Ball or @Risk to accomplish this. As usual, the Excel template is available at the usual Decision Line website.
In this timely essay, Dean Tilden Curry of Tennessee State University reviews the experience of business schools in relation to the teaching of ethics. He examines the history of ethics education, areas of successes, and areas needing continued attention, while describing how Tennessee State University (TSU) has responded to the need for ethics education in the business curriculum. He calls for ongoing exploration of the substance of business ethics curriculum and ethical business school operation.

Teaching Business Ethics: The Perspective of One Business Dean

by Tilden J. Curry, Tennessee State University

The corporate scandals exposed in the new century were a major “wake-up call” for business schools around the country, including, most assuredly, the College of Business at Tennessee State University. There was the realization that maybe not enough had been done to foster a strong ethical core among business students and that some of the blame for these scandals might lay at our doorsteps. We had previously taken pleasure in basking in the glow of many prior accomplishments of corporate America, whether they were advances in productivity enhancements, quality control, or information systems. Now the opposite side of the equation has confronted us the past few years with lapses in ethical behavior apparent among many corporate executives and professionals in the field of accounting.

In 2002, I wrote a column on “Ethics in Business and Education” for the Dean’s Corner of eNewsline, the principal online news organ of AACSB International, the Association to Advance Collegiate Schools of Business. In it, I laid out the obvious problem of poor ethical behavior on the part of some in corporate America and the need for business schools to reassess their coverage of ethics. Also stressed was the importance of students seeing that strong ethical standards were adhered to within our universities. In this piece, I will review the experience of our business school in addressing the teaching of business ethics over the past quarter century, as well as setting forth a future agenda for our business school and some general observations about a long-term focus on business ethics among business schools across the country.

The Early Years

The first serious discussions of business ethics in our business school were prompted by the findings of the Securities and Exchange Commission in the 1970s that several hundred incidences of bribery of foreign officials by U.S. companies had occurred. This led to the enactment of the Foreign Corrupt Practices Act of 1977, as well as greater attention to business ethics in the standards of AACSB. It was 1982, however, before the teaching of business ethics became a focus in our business school. That was the year that a concerted effort was begun to improve the overall quality of our program and to pursue AACSB accreditation in earnest. One of the major objectives of a new Strategic Plan for Accreditation was to assess the appropriate coverage of business ethics within the curriculum.

The assessment of business ethics led to an approach adopted by most business schools of that period. This was to integrate the teaching of business ethics throughout the curriculum rather than as a required standalone course.
course for all students. Particular emphasis was placed on assuring appropriate coverage with business core courses. Breadth of coverage was clearly emphasized over the substantive nature of business ethics. Arrangements were also made with the Philosophy Department to offer a course in business ethics that students were recommended to take as a non-business elective. Periodic workshops were also held on business ethics, one of which ironically had the Arthur Anderson Code of Ethics as its centerpiece.

Close attention to the coverage of business ethics continued through the balance of the 1980s and early 1990s. With the receipt of initial AACSB accreditation in 1994 and the adoption of a new strategic plan for the College of Business, emphases shifted to other areas. It was not that business ethics was no longer considered important. It was more the thought that we were already addressing that issue in an appropriate manner. We knew that we were doing a better job in teaching business ethics than in prior years. In essence, though, we were operating pretty much on “automatic pilot” when it came to business ethics. In retrospect, this is understandable. It is almost impossible for any organization to stay fully focused on all major issues. Some issues command major attention only on a cyclical basis. Maybe the teaching of business ethics is an issue in that category, particularly if there is not an external stimulus or support system in place.

Replacing business ethics as a major focus area in the TSU College of Business during most of the 1990s were a number of initiatives set forth in the new 1993 strategic plan. These included international linkages and greater globalization of the curriculum, technology upgrades, a new major in Business Information Systems, fundraising for scholarships and endowed chairs of excellence, faculty performance evaluation criteria, the development of the Office of Business and Economic Research, entrepreneurship, and outreach services to the business community. These were initiatives that were clearly important in the further development of the College.

The New Century
With the unfortunate revelations inherent in the corporate scandals of earlier this decade, our College, as most business schools, began another major assessment of its approach in teaching business ethics. While some ethical problems were assumed to have existed, the magnitude of the corporate scandal was “shocking” to say the least. We realized that not enough had been done to deter such unethical behavior. Also, the stakes appeared much higher this time around. Basic public confidence in American business practices, so crucial to healthy equity markets, seemed to be very much in jeopardy. It was thought that unless public confidence had been restored and there existed a general belief that corporations were operating within a climate of greater trust, honesty, and adherence to appropriate standards of governance, the economy was likely to suffer further. Although we are only a relatively small business school with limited impact on the national scene, we felt the pressing need to do our part in addressing this weighty issue.

There were several areas of exploration in assessing the appropriate role of the TSU College of Business in teaching business ethics. They included the following:

1. Core values and guiding principles
2. Student attitudes concerning the importance of ethics
3. A required course in business ethics
4. Elective courses in business ethics
5. Coverage of business ethics within existing courses

Strategic planning has been a basic framework for the development of the TSU College of Business since the early 1980s. Much pride is taken for the systematic implementation of 80 to 85 percent of the plan adopted in 1993. In development of the 2003 strategic plan, however, it was realized early on that one major deficiency of past plans was the lack of a clearly defined values statement that set, among other things, ethical expectations for students, faculty, and staff of the College. Somewhat troubling had been the findings of a survey of student opinions on business ethics administered by a member of the Accounting faculty. While some of the opinions were found to be quite laudable, the survey results clearly revealed that more work needed to be done to instill a stronger commitment to ethical behavior among some of the student body. A set of core values and guiding principles was subsequently formulated working collaboratively with major stakeholders of the College. This set of values and principles, together with the vision and mission statements, was included in the new strategic plan and is also now displayed throughout facilities of the College and attached to course syllabi.

The new strategic plan called for the faculty curriculum committee to reassess the coverage of business ethics and to determine if a required course in business ethics was needed. To date, a recommendation for such a course has not materialized. This is due, in part, to the College having to reduce the credit hour requirements for its BBA degree programs from 129 to 120 semester hours as a result of new policies of the Tennessee Board of Regents, the governing board for the University. There is also the continuing view among a substantial percentage of this faculty that business ethics can best be addressed if integrated well throughout the curriculum. This appears to be the prevailing view across the country as no more than a third of business schools accredited by AACSB International offer a course in business ethics and even fewer require an ethics course (Willed, 2004, cited by D. Swanson, Teaching Business Ethics Conference, Boulder, Colorado, 2005).

Although a required course in business ethics for all students has not, as yet, been added to the curriculum of the College of Business, a number of other enhancements in coverage have occurred. A business ethics course has been developed in the College as an elec-
Business School and University Operations

As a business dean, I have made a major attempt to ensure that we manage, lead, and operate an ethical business school. In addition to the obvious merits of such from the standpoint of our own personal ethical behavior, there is the residual impact on students to consider. If there is a dichotomy between what we teach and what we practice, we surely cannot expect our students to leave campus with a full appreciation of the need to pursue ethical business careers. There are, however, many challenges to pursue and temptations to avoid in order for us to assure that such a dichotomy does not exist.

While the financial stakes may not be the same as that of a private corporation, individuals at universities and business schools are quite capable of “cooking the books,” so to speak, in a number of areas that would imply ethical transgressions. Such areas would include selective reporting of the qualifications of students admitted, accuracy of promotional and catalog materials, use of donor contributions, and the reporting of the academic qualification of faculties. Other areas that can also be troubling from an ethical standpoint include the following: (1) whether commitments made to faculty and students are kept, (2) various teaching behaviors, (3) research conduct, (4) relationships with students and other stakeholders, (5) consulting conflicts, (6) the basis of scholarship and other awards, (7) reporting of faculty and faculty leaves, and (8) tenure and promotion decisions. Each of these matters should be approached from an ethical frame of reference so as to better assure an environment conducive to productive work and essential learning.

Teaching Business Ethics Today and Tomorrow

The teaching of business ethics has never commanded the attention of business schools as it has over the past few years. Most schools have conducted an assessment of its coverage to some degree and more schools now require either a course in business ethics or a related course such as corporate social responsibility or business and society. (Headlines, BizEd, p.10, Jan/Feb 2006). More conferences are being held with business ethics as either the focus or an important component. (A good example is the Teaching Business Ethics Conference held in Boulder, Colorado, during July 2005. It was organized and developed, as equal partners, by AACSB International, Colorado State University, University of Colorado, and University of Wyoming. It was structured under four major topics: (1) foundational ethics coursework, (2) ethics and compliance, (3) innovative methods for teaching business ethics, and (4) deans’ perspectives, the latter of which I participated in as a panelist. There are now more business schools with chairs, professorships and centers in business ethics. More textbooks and various instructional tools in the field are also now available, as well as related articles in scholarly journals and commercial magazines.

AACSB International has clearly stepped up to the challenge and opportunity of addressing the issue of business ethics. The accreditation standards related to business ethics were strengthened in 2003. While the previous standards called for a curriculum that provided an understanding of ethical and global issues, the new standards go further to require that each institution “must establish expectations for ethical behavior by administrators, faculty, and students” (“Accreditation Standards for Business Administration,” AACSB International, Section 1, Standard E, 2005). A new assurance of learning standards also identifies ethical understanding and reasoning abilities as one of the six general knowledge and skill areas that learning experience should result in through the curriculum management process (Section 2, Standard 15). The report of its Ethics Education Task Force, published in 2004, entitled “Ethics Education in Business Schools,” further encouraged administrators and faculty to explore methods to strengthen the vital ethical component of the curriculum. The report addressed the following areas: (1) responsibility of business and society, (2) ethical leadership, (3) ethical decision making, (4) corporate governance, and (5) questions about ethics education for business leaders. AACSB International is also providing a valuable resource for information, tools, and discussion about ethics education in business via an Ethics Education Resource Center on its website (www.aacsb.edu).

Much has been done to better ensure a sound foundation in ethical behavior of business students as they begin their professional careers. Much, however, remains to be done. At our business school, for example, a required course in ethics is still likely to materialize, although as a reconstituted Legal and Ethical Environment of Business. Corporate governance will need to be given greater attention, as well as the substance of what is being taught as business ethics and what the profession might view as ethical business school operations. Future conferences on teaching business ethics, as well as more outlets for scholarly research in the field, are needed to further develop this evolving discipline within the profession. Without such being the case to foster continuing momentum for the subject, it is highly probable, as other areas gain importance in business school operations in the future, attention to business ethics will wane. We could very well wake-up in 15 to 20 years to learn of new unethical business practices of the magnitude of recent occurrences and conclude again that business schools could have done more to help deter such transgressions.
While there is unprecedented interest in integrating the teaching of ethics into the curriculum in business schools, a wide variety of philosophies dictate the content and design of the curriculum, and its delivery as well. Consensus on how to teach ethics or, for that matter, what to teach, remains elusive. One of the major questions is whether ethics should be taught as a separate business course or integrated across the curriculum in all business courses. In this essay, David Krause and Sarah Peck, both of Marquette University, discuss how they address the issues of ethics education in the finance curriculum.

Teaching Business Ethics: The Departmental Perspective

by David Krause and Sarah Peck, Marquette University

We attended the AACSB conference “Teaching Business Ethics” in the summer of 2005 and came away with a better understanding of the various issues involved in teaching this material. One of the major questions was whether ethics should be taught as a separate business course or integrated across the curriculum in all business courses. We learned from those attending the conference that there is no agreed upon method. Some schools offer a specific required ethics course; others integrate it into the “Business and Society” course; others attempt to integrate it into all of the business courses taught; and some don’t address ethics at all.

Another major question discussed at the conference was whether business ethics courses should be taught by business professors or by professors from Philosophy or Religious Studies. When the course is taught by business professors, most often, it is taught by those in Management. We did not fit into either group. We were part of only a small handful of Finance professors attending the conference, despite the fact that many of the well-known corporate scandals have been finance and accounting related. We were there because we plan to offer a course entitled “Investment Management, Ethics, and Society,” a finance business ethics and society course. In developing this course, we have not been able to find any other school that offers a similar course. Because we are doing something that is innovative, we thought it would be valuable to share what we are doing and why.

Thinking Beyond the Current Issues—What We Do at Marquette

At Marquette University we take the issue of teaching business ethics seriously. As a Jesuit university, Marquette has a long standing practice of requiring a heavy dose of both theology and ethics of all our students, whether in the business school or not. Like many business schools, both Jesuit and non-Jesuit, our students are required to take either a “Business and Society” course or a “Business Ethics” course. We also integrate ethical issues throughout the courses in our curriculum. However, unlike other schools, our students can also take an ethics course that is specific to their major, like the finance course mentioned above. We also offer “Economics and Ethics” and “Marketing and Society.” A heavy dose of ethics is incorporated into our “Auditing Principles and Procedures” course for our accounting majors. Besides making us distinctive, we believe that there are sev-
eral advantages to this approach, the most important being, of course, that we produce students who become managers and who are able to conduct business in an ethical and moral way.

Engages Students and Enhances Student Learning

Teaching ethics at the major level requires that students have advanced knowledge of their field. As a result, the ethical issues that can be addressed are more sophisticated and subtle than those that can be addressed in a more generalized course. Often students perceive that what they are taught, for example, in a Business in Society course, is self-evident. “Yes, we already know that it’s bad for corporations to pollute the environment.” If students perceive that they are not learning anything new, then they tend to disengage and thus miss some of the more sticky issues in ethical decision making taught in those courses that are of value to them.

Students are also likely to have a heightened interest in the material because it relates to their chosen field. Because students are interested in finance, they are more likely to be interested in ethical issues in the finance industry. Their self-selection into a major that holds interest for them can serve as a vehicle to enhance their interest in the related ethical issues. For example, an on-going problem in the finance industry is soft dollars.

The term soft dollars refers to an arrangement where a money manager receives research or brokerage services from a broker-dealer in exchange for executing trades through that broker. The practice is classified in Section 28(e) of the Securities Exchange Act. Soft dollars are considered by some to be a hidden cost to individual investors that benefits money managers and their financial advisors. Most commonly, a portion of every commission is retained by the broker as payment for research advice or other services normally paid for by the money manger. Such agreements are called “commission recapture arrangements,” which are basically expenses that can be directed to the money managers’ broker to improve the fund manager’s bottom line at the expense of their investors. The controversy over whether soft dollar arrangements pose conflicts of interest is a topic that is specific to the finance industry. It is unlikely that a marketing major would be interested in discussing whether soft dollars cause an over-consumption of research and how this influences the decisions of money managers—while a finance major would likely find this ethical discussion very intriguing.

Another example is “market timing.” Market timing, unless specifically stated in a fund’s prospectus that the practice will not be used, is not illegal, but can be unethical. Market timing is an investment technique involving short-term, “in and out” trading of mutual fund shares, which has a detrimental effect on the long-term shareholders for whom mutual fund investors are designed, such as retirees and other “buy and hold” investors. The technique is designed to exploit market inefficiencies when the “net asset value” or “NAV” price of the mutual fund shares—which is set at the 4:00 p.m. market close—does not reflect the current market value of the stocks held by the mutual fund. When a “market timer” buys mutual fund shares at the stale NAV in a rising market, he or she realizes a profit when he or she sells those shares the next trading day or thereafter. That profit dilutes the value of shares held by long-term investors. Understanding market timing requires students to have sufficient understanding about how portfolio values are calculated and specifically how mutual funds are priced. Again, it is unlikely that students in other majors would have either the sufficient background or interest to grasp the ethical issues involved in this trading technique. However, it is critical for students entering the investment business to be familiar with these issues if they are to become ethical money managers.

Practical Advice and Learning Outcomes

In addition to engaging students, taking an ethics courses in their major is likely to produce more ethical managem-

ers because the course can focus on issues that are specific to that industry. Thus, students will be better prepared to face issues that they will most likely encounter in their chosen profession and ultimately make the right decision. After all, this is why we have ethics in the curriculum in the first place. While most finance majors will encounter the soft dollar or market timing dilemmas in their careers (75% of Marquette’s finance students enter the investment field), virtually no marketing majors would.

Teaching students about current ethical dilemmas in their chosen career will also provide them with better tools to address new ethical dilemmas that will come across their paths in the future. Most of the ethical issues in investments revolve around the use and disclosure of information, the timing of trades, and the pricing of securities. For example, a detailed discussion of issues such as soft dollars and market timing will increase the student’s grasp of these issues. As managers, these students will be in a stronger position to identify and nullify potential ethical violations associated with more complicated and new types of financial transactions that emerge in the future. Turning out students who become proactive managers who prevent ethical violations is certainly an important learning outcome.

Ethics courses that are specific to a major can also provide more practical advice. Most professions have a code of conduct that is specific to a profession. For example, in finance there are professional designations, Charter Financial Analyst and Certified Financial Planner. Not only should students know what these codes are for these designations, but they should also be able to ethically evaluate these codes of conduct. They should also understand the distinction between legal, ethical, and moral conduct for their profession. This provides practical advice for students starting their careers. What are the specific dilemmas that they are likely to encounter? What are the industry standards that guide this behavior? What
are their values? Who do they go to? Their boss? The SEC?

Meaningful Integration

AACSB and many other teaching professionals advocate an integrated approach to curriculum design. A common integrated approach is to discuss ethics in all courses. However, because no substantial amount of time is devoted to ethics in any one course, the treatment of ethics tends to be both superficial and repetitive. For example, insider trading is often used as an example of unethical behavior in finance. It’s easy and quick and gets covered in almost all courses. Most students know about insider trading already and their eyes glaze over after they’ve heard it for the umpteenth time. When that happens, they are not learning about ethical decision making.

Teaching ethics at the major level allows more time for students both to go into more depth on any one issue, as well as to cover issues that are less transparent or well known. While many students know about insider trading, they are less likely to be familiar with soft dollars. New material is likely to capture students’ attention and result in greater learning. Issues that are more complex and problematic force students to be more engaged in thinking through the ethical issues.

Teaching ethics at the major level also forces integration of course material that is traditionally taught across departments. Socially responsible investing provides an example of how material in a “Business and Society” course taught by the Management department can be integrated into a finance course. Identifying companies that are socially responsible requires an understanding of the topics covered in a traditional “Business and Society” course: stakeholder theory, and its attendant issues of employee relations, environmental concerns, etc. However, evaluating the stock price performance of socially responsible companies requires an understanding of risk adjusted returns, portfolio theory, and benchmarking. As a practical issue, students can also learn about various rating agencies and mutual funds that claim to follow a practice of socially responsible investing (SRI). Thus, an investment ethics course is able to integrate material from two separate courses, “Investments” and “Business and Society,” into one course that is likely to have more meaning for a finance major as well as provide more practical advice.

Another benefit of an integrated approach is that it allows another opportunity to teach major material. Understanding issues in finance such as soft dollars, market timing, and SRI requires a solid understanding of how financial markets work and securities are priced. A discussion of the ethical and moral issues surrounding these topics requires visiting these basic concepts in finance once again. Student learning is often enhanced when students see important concepts revisited repeatedly but in different contexts.

Practical Issues: Teaching, Scheduling, Faculty Buy-In

Even if you buy into the pedagogical reasons for offering a major ethics course, there are always resource implications. First, administrators must find someone who can teach such a course. Hopefully, there are faculty in the department that have either a teaching or research interest in developing such a course. Deans need to provide support for the development of the course material, such as ours did by sending us to the conference (it also helped that we have research interests in corporate governance, the financial costs of Sarbanes Oxley, socially responsible investing, etc.). If not, business professionals are often a possible resource. Unfortunately, there are many who have had experiences with unethical business behavior in their specific professions.

Administrators also have to think about whether a major ethics course offered as a major elective can substitute for a “Business and Society” or “Business Ethics” course and whether the major ethics course is required for all majors. The former requires sufficient sections to be offered each semester so that students can fulfill course requirements and graduate on time; the latter requires only that the course be offered with the same frequency as other electives in the major. The first approach requires more teaching resources be devoted to teaching business ethics. Which of the two approaches administrators take will depend on the resources available at their institutions, as well as on each department’s commitment to teaching ethics.

Finally, and most importantly, faculty must “buy in” to such an approach for it to be successful. At Marquette, in developing our curriculum, we focus on learning outcomes rather than requiring specific courses. First, a committee with representatives across departments identified the learning outcomes for the ethics component of our curriculum. These learning outcomes were then approved by the entire faculty. Subsequently, courses can be submitted for approval as one that satisfies the learning outcomes in a particular area, i.e., ethics. If the undergraduate committee determines that a proposed course fulfills the learning outcomes, then it is approved. This approach takes the emphasis off department “ownership” of courses and places it on student learning. It also allows for more innovation and new course development.

Students Who Become Ethical Managers

The bottom line is that we believe that offering ethics at the major level ultimately produces students who are both more proficient and more ethical managers. Ethical dilemmas presented in the context of the student’s chosen career provide more practical advice, more effective tools for ethical management, greater student engagement and learning, and another opportunity for students to learn important concepts in their major. If deans are willing to reallocate resources to such an approach, we can think of no costs in terms of the learning outcome—producing ethical managers—that underlies the rationale for teaching ethics in the first place.
Forming an Adaptive Network for Doctoral Student Success

by Gary F. Templeton and Kirk P. Arnett, Mississippi State University

Earning a doctoral degree is typically a long, arduous process offering a variety of experiences that significantly affect the careers of those who pursue membership in “the club.” Among other factors, student experiences in doctoral programs vary widely in terms of completion time (two to ten years or more), developmental opportunities (teaching, research, service, and funding), reliance on distance learning, and exposure to talented others. We have observed that doctoral students who are able to use their experiences to build or participate in adaptive networks better capitalize on available opportunities. Thus, doctoral students who successfully form adaptive network teams during their studies can gain many more opportunities and hence produce more than those who may not be a part of such teams. This column should prove useful to doctoral students in forming adaptive networks with faculty mentors and doctoral student peers.

An adaptive network is an interpersonal network subject to change in culture, productive nature, structure of those who participate, and other characteristics. It adapts in order to accommodate new people and ideas, but usually has reasonably stable goals. To illustrate, a doctoral student may work with mutually inclusive groups during statistics coursework, field, or dissertation phases of the program. Adaptive means that these groups may change characteristics (e.g., from rigid hierarchical or to peer thinking), depending on the situation. The basic motivation for adaptive networks derives from the need for doctoral students to achieve maximum effectiveness, which is complicated by the requirement to interact with a diverse group of people, over a long period of time, and on a variety of tasks. In short, we believe students who are able to successfully form and manage adaptive networks will achieve greater learning and goal attainment and, in doing so, will enhance the brand name of the doctoral-granting institution.

Within their chosen adaptive network, we encourage doctoral students to form situation-dependent, peer-oriented virtual teams. Our combined experiences have been informed by observing a variety of colleagues in multiple disciplines at several schools for over 30 years. To articulate our perspective, we will discuss three primary forms of adaptive networks as well as the relevant issues they embody.

Forming Adaptive Networks

During your doctoral program, you will have many options regarding who you include in your adaptive network. The network will serve as a strategic support unit and may cross many hierarchical, disciplinary, and cultural boundaries. What is not always apparent to many doctoral students is the option to exclude undesired members from their ongoing network.

Many peer network members are “automatically” assigned based on the nature of doctoral programs. A peer student (or even a faculty mentor) in the network may be a potential stumbling block in building the network. This result is often because of the students’ failure to recognize the personal cultures and blends of cultures that exist among
the faculty. Students may also recruit network members via selection among peers and faculty based on cultural orientations. Network cultures are mainly a function of the will of their faculty mentor(s) and may be characterized by mutual respect, fear, and/or neglect.

We propose that, by far, the most productive network culture is based on mutual respect. This culture is characterized by a faculty mentor who shares knowledge, is open to criticism, is motivated to learn, and is trustworthy. Communication in this cultural type may be characterized as a many-to-many peer relationship, which is a sharp contrast to the top-down-driven, monolithic, autocratic style of mentorship. In the mutual respect culture, the mentor facilitates learning. In this case, the faculty member respects information flow between members without demanding undue recognition, rewards, authorship, or other credit. For instance, in a network based on mutual respect, a faculty mentor would insist that order of authorship be based on level of contribution, rather than formal status.

When the faculty mentor motivates with fear, common tactics may include (1) the appeal of working with a perceived ‘MIS star’, (2) the threat of failing a program requirement (e.g., a comprehensive exam or the dissertation), and (3) fear of reputation reprisal. Certainly, working in a fear-driven relationship is not generally accepted in academia, where “psychological safety” is highly sought and valued. Because such relationships may occur and seem unavoidable, students should use their networks to consult for ideas to adapt accordingly. For instance, one option is to avoid or change structure of a program or dissertation committee. Unless the goals are highly compatible, students should disassociate with mentors who motivate by fear.

Faculty mentors characterized as neglectful are typified by working only at home or behind closed office doors. Working in academic units that accommodate such a style can result in a “ghost town” effect that is characterized by distrust, lack of sharing, and the withholding of information from all sources. Such mentors may be characterized by dismissive attitudes towards students, including being tied to more important projects or issues, lack of concern for productivity, and work characterized by peaks and valleys of participation and support. These mentors may be able to offer verbal input and guide short-term success. However, the long-term commitment and consistent availability necessary for sustained academic success will not be offered by the neglectful mentor. Finally, it is important to also note that neglectful mentors may very well be highly personable, trustworthy, and ethical as academics. Use caution when considering chronically neglectful people for your network.

Students forming networks should be wary of falling into the common trap of status seeking. Often, students striving to gain credibility in the profession are willing to subject themselves to network arrangements that may indeed provide status gains (e.g., top journal publication). However, these benefits may never accrue, despite the student being subjected to tremendous fear and neglect in the process. In addition, the negative results of engaging in fearful and neglectful network cultures may have long-lasting consequences, such as delayed graduation, poor performance on some program requirements, etc. For this reason, we would also caution students to make program requirements an absolute priority over independent projects, regardless of network arrangements. Enduring status will come to you only through years of commitment and productivity at a high level of quality. As mentioned, we strongly encourage doctoral students to engage in networks centered on mutual respect in order to achieve sustained status in their field.

The Promise of Peer Work

In academic work, the network that is highly functional without hierarchical leadership is a treasured prize. In this view, the optimal adaptive network is one that promotes goodwill within and beyond the network though positive competition.

“Peer Work” and the Importance of Competitive Style

We all encounter competitive situations at some point in our lives, and the doctoral program is no exception. Faculty and doctoral students are high achievers, and most are competitive in some way. You will observe three types of competitors in this profession. First, positive competitors compete by adding value to artifacts, themselves, others, programs (i.e., Ph.D.), department, and generally, any other element of their environment. As positive competitors learn, they use their knowledge to benefit others—even direct competitors. Thus, these people may compete heavily for any reward, but do so in a way that is largely beneficial to the network and therefore acceptable to those in and outside their own adaptive network. Second, faculty mentors may be negative competitors, who hope to benefit themselves by reducing the productivity or image of those around them. Third, academic faculty mentors may certainly be a hybrid of the other two types. For instance, hybrid competitors may act as positive competitors when key decision makers are observing and negative when they believe no one is watching. Certainly, we encourage you to be a positive competitor and lament the other two types, which are self-defeating long-term. Encouraging and facilitating the success of faculty and other doctoral students involved in your program can be richly rewarding to any doctoral student. Observing the careers, spanning many decades, of past colleagues, we see a large gap between the successes of positive and negative competitors. Typically, positive competitors have far more opportunities than they ever will be able to manage during their careers. Because of what negative competitors proliferate in their own environments, they often become isolated, unaware and misguided, less academically motivated, and much less produc-
tive. In summary, we believe the chosen competitive style largely determines success or failure in academia.

“Peer Work” and Interpersonal Skills
As a doctoral student, and even as an untenured faculty, there are four primary interpersonal skills you should develop: productivity, personality, politics, and presence.

Productivity. As you mature in your doctoral program, make it a primary goal to seek out understanding as it pertains to the three hallmarks of academic productivity: research, teaching, and service. Success at your eventual institution will depend on your experiences in any of these areas. In particular, teaching will be critically important in the vast majority of faculty positions. Extending your adaptive network to your students can also provide tremendous benefits. Interacting with students is helpful to understanding good course design for future versions of the course as well as any immediate issues. Overall, it will be very difficult to succeed as an academic without excelling as a teacher and socially (through students) learning about delivering your assigned courses. Generally, even to achieve moderately ambitious goals in a doctoral program, productivity must be at the core of your adaptive network.

Personality. To successfully engage in teamwork and develop an adaptive network, you must learn to work well with a wide range of personality types. In our opinion, this is what makes academia a potentially addictive profession! Value people for how they can teach and socially (through students) learning about delivering your assigned courses. Generally, even to achieve moderately ambitious goals in a doctoral program, productivity must be at the core of your adaptive network.

Politics. In simple terms, the source of politics is the aforementioned “negative competition” for perceived organizational reward, such as pay, credit (e.g., order of authorship, awards), or image. It is generally agreed among faculty that doctoral students should try to avoid involvement in politics while earning a doctorate. The best defense against political involvement is the promotion of “positive competition” and teamwork in your adaptive network.

Presence. We have observed a wide range of scenarios where being present in the same office space as faculty and peer doctoral students has had a tremendous impact on network effectiveness. Academia appears to have a natural “attendance policy,” whereby those who cluster together in adjacent offices, at lunch, in the same building, or after hours tend to be more effective. We suggest you prioritize independent projects based on the level of physical presence of associated group members. Academia is notorious for faculty who do not go into the office to work and for those that go to work, but remain isolated behind closed doors. Such a style can be devastating to the career of the aspiring or early-stage academic. We find that a critical mass of colleagues committed to being present and available has greatly enhanced academic programs as well as the careers of the individuals who participate. As previously mentioned, the best networks are characterized by members who are physically present.

Forming Within-Network Teams
Within this larger network, we suggest the creation of shorter-term virtual teams, which may dissipate and reform with different members based on situational factors (whether you are working on one of several independent research projects, the dissertation, comprehensive exams, etc.).

Decisions that students make regarding the selection and de-selection of team members may have a tremendous impact on career outcomes. Given the variety of optional personalities and capabilities, decision making can be demanding. The key to accepting and working with chosen team members is an appreciation for diversity. In short, a lack of tolerance will destroy the team concept and, as a result, its potential. We anticipate that different within-net-work teams will be formed several times during doctoral studies. Situations such as individual course assignments, tests, presentations, development of the program of study, statistics and field comprehensive exams, dissertation, publishing independent research, and job placement may require separate teams within the overall adaptive network.

Search for network members who represent diversity yet share values and goals. Because the team is peer-oriented, formal hierarchical positions (doctoral students, assistant professor, associate professor and professor) should not be the guiding principle. We have observed that generally, the best teammates work as follows:

1. Work regularly in their school office
2. Value productivity over personalities and politics
3. Make themselves available to students and faculty
4. Value commitment

At a minimum, each team member should be able to competently perform discretely defined tasks.

Conclusion
We hope this column illuminates some of the performance barriers that may affect doctoral students in their pursuit of higher learning. We propose that doctoral student productivity will be much greater in peer-oriented adaptive network teams, compared to other possible arrangements. In the Business Information Systems doctoral program at Mississippi State University, we have observed that students who employ such strategies learn more, publish more, and graduate on a timelier basis. Regardless of your circumstances, fitting in with group of faculty and doctoral students with good practices may be as important as any book you read or paper you author.

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Marc Schniederjans (University of Nebraska) recently issued a book on outsourcing that has received some favorable attention from some of our colleagues. Robert Markland (past president of DSI) commented that the book is “Well written and thoroughly researched . . . an excellent blend of qualitative discussions and quantitative techniques . . . . The international focus of this textbook makes it particularly timely, valuable, and appealing.” Kalyan Singhal (founder of POMS) said that the book is “comprehensive and creative. The authors have done a superb job . . . .” Kenneth Kendall (president-elect of DSI) commented that “Professors who are teaching a course in outsourcing should definitely adopt this text.” For more, see the publisher’s Web site at http://www.mesharpe.com.

In the following article, Dr. Linda Sprague reviews this book.

Outsourcing and Insourcing in an International Context

by Linda G. Sprague, China Europe International Business School, Shanghai, China

This compact textbook provides a sound introduction to the key issues involved in outsourcing decisions, as well as definitions of a variety of terms in common use in the business. Designed for “an upper-level undergraduate course or a graduate course in business,” it is also appropriate for managers unfamiliar with the details of outsourcing decision-making.

The eight chapters are divided into two segments—a four-chapter introduction followed by four chapters devoted to “Methodologies for Different Types of Outsourcing-Insourcing Decisions.” The final chapter is an Epilogue: “There are Wrong Ways and Rights [sic] Ways to Outsource-Insource in an International Context.”

At the outset, definitions are offered: outsourcing involves allocating or relocating business activities (both service and/or manufacturing activities) from an internal source to an external source. Conversely, insourcing can be defined as internal sourcing of business activities. So, insourcing can be viewed as an allocation or reallocation of resources internally within the same organization, even if the allocation is in differing geographic locations.
The operational definition of outsourcing is fine; the operational definition of insourcing is less clear. I am accustomed to the definition of insourcing as returning a previously outsourced process/activity to the organization. In Table 1.2 this is called backsourcing, a term not familiar to me. Figure 1.2 provides a brief summary of predecessor business activities which suggests an evolution from subcontracting (“traditional”) through outsourcing (“present day”) to the virtual organization (“future”)—this is very helpful background.

A theme which runs through the book is outsourcing as a strategic decision, not a tactical one, for the organization. This begins in the first chapter with a focus on the organization’s core competencies. Rationales for outsourcing are drawn from economics with introductions (very brief) of transaction cost theory (Coase) and agency theory. From social exchange theory, interorganizational relationship theory is introduced, again very briefly. “The motivation for outsourcing in an international context is supported in the economic theory of comparative advantage.”

The risks associated with outsourcing—particularly “in an international context”—are also introduced in the first chapter.

Chapter 2 is a set of brief listings of the “Advantages and Disadvantages of Outsourcing-Insourcing. There is discussion of the “Disadvantages of Outsourcing (or Advantages of Insourcing).” The entire text is focused primarily on outsourcing; there is little attention paid specifically to insourcing although it is regularly offered as the alternative to outsourcing.

The third chapter is devoted to “Outsourcing-Insourcing Strategy and International Risk Factors.” A framework characterizing the nature of the risks is developed (Table 3.2 and Figure 3.4) and subsequently used throughout the rest of the text with good effect. The risks are categorized as:

- **Economics**: labor, capital, infrastructure
- **Politics**: legalities, ideology, instability
- **Culture**: language, social norms, gender roles
- **Demographics**: migration, urbanization, population

The framework is used here to provide an example of “O-I Risk Factors Creating an Interactive Chain-effect,” beginning with government instability, resulting in inflation which leads to renegotiation of the outsourcing agreement. Short cases on the “Complication of Risk Factors” are described for Dell (technical support offshore), Cable & Wireless plc (IT outsourcing), and Islington Council Government Service Agreement (housing benefits administration). All three were failures caused generally by inadequate consideration of language issues.

“Planning International Outsourcing-Insourcing” (Chapter 4) is reminiscent of sections in regular Operations Management texts on facility location, but with considerably more emphasis on risk factor analysis, establishing goals, and developing agreement specifications.

The second half of this text turns to “Methodologies for Different Types of Outsourcing-Insourcing Decisions.” Considerable enthusiasm is offered for “Executive and Board of Director Polling” because “O-I has to start at the strategic level of planning...” Sample polling questions are provided. This is followed by the introduction of a multicriteria scoring method (MCSM) for evaluating outsourcing provider candidates. The Delphi Method, External Benchmarking, and Gap Analysis are also described. Economic, Political, Culture, and Demographic Risk Factor Assessment are also discussed. None of these are described in sufficient detail for implementation in a real situation.

Chapter 6, “Financial Methodologies for the Initial Outsourcing-Insourcing Decision,” offers very brief introductions to Present Value Analysis, Break-Even Analysis, Return on Investment, Internal Rate of Return, Accounting Rate of Return, Payback Period, and Cost-Benefit Analysis. The major gap here is discussion of the sources of data, assessments of their quality and reliability, alternative scenarios, etc.—all very serious problems when working in an “international context.” An “Initial Decision” for an organization is particularly fraught with difficulties for the decision makers for whom this is likely to be unfamiliar territory.

“Methodologies for Selecting Outsourcing-Insourcing Partners” (Chapter 7) includes a checklist of “Risk Factors to Consider in the Outsource Provider Selection Process” (Table 7.2). This chapter would benefit from discussion of how to identify potential partners beyond the suggestion that a particular website or pricing guide be used. A number of “Decision Theory Methods for Partner Selection Decisions” are described for decision making under risk and under uncertainty, but little attention is paid to the quality and relevance of the data available.

Game Theory, Linear Programming, and Integer LP are introduced in Chapter 8: “Methodologies for Allocating Business Activities Between Outsourcers and Insourcers.” This chapter is more about methodology than about international outsourcing.

The Epilogue, “There are Wrong Ways and Rights [sic] Ways to Outsource-Insource in an International Context,” brings the book back to its title. A list of seven wrong ways to O-I is common sense wisdom, but recall Winston Churchill’s comment that “common sense is not at all common.” Each of the seven wrong ways is discussed using good examples. Another chain-effect is shown starting with “Outsource providers in one nation reveal client corporation secrets to home companies” and ending with the possible collapse of the outsourcing industry. This is balanced with an example of another “Chain-effect Resulting from Positive Experience.” The text ends with sen-
3. The proposed standstill budget for FY 2006-07 was approved in addition to the following alternative items, which become part of the approved standstill budget:

- An expense item for seed money of $5,000 each to organize up to two miniconferences to be held independent of the 2006 Annual Meeting.
- An expense item for programming the DSI website.
- An increase in dues from $100 to $125 for regular members.
- An increase in dues from $33 to $35 for emeritus members.

4. The Institute's 2006-07 Marketing Plan and Membership Statistics were reviewed and accepted.

5. The proposal to offer reduced membership dues to residents of low/middle income countries was tabled until more information is available on the demographics of current international members of the Institute.

6. The recommendation for the appointment of the Program Chair, Marc Schniederjans, for the 2008 Annual Meeting was accepted.

7. The proposed 2006 Fellow nominations (Gary Klein and Marc Schniederjans) were reviewed and approved.

8. Changes to the Southeast Region's Bylaws were reviewed and approved.

9. The State of the Southeast Region's report was reviewed and accepted.

10. The State of the Southwest Region's report was reviewed and accepted.

11. The Institute's Strategic Plan with Goals for 2006-07 was approved.

12. Objectives for the Board of Directors, and proposed committee (and other) charges for 2006-07 were approved.

13. Committee membership appointments for 2006-07 were approved.

14. The development of the current Annual Meeting Conference Information System was discontinued.

15. The following reports were presented, reviewed, and accepted:

- Results of the 2006 election of officers
- Schedules of the 2007 Executive Committee and Board of Directors meeting
- Results of the election of a Vice President to serve on the Executive Committee
- Hotel cancellation information
- Annual report from Blackwell Publishing on the Decision Sciences Journal and the Decision Sciences Journal of Innovative Education
- Report on submission statistics for the 2006 Annual Meeting in San Antonio
- Slate of nominees for the 2007 election of officers
- Statement of the accomplishments of the 2005-06 Board of Directors
- Regional meeting reports from Board representatives

16. Proposed tracks for the 2007 Annual Meeting were reviewed and accepted.

17. The Fellows Appreciation Luncheon was discussed and acted upon.
This Special Topic Forum (STF) focuses on advancing decision-making research in the health-sector supply chain by publishing forward-thinking, rigorous research that stimulates future research on designing and managing healthcare services in today’s rapidly changing environment. When considering the unique challenges of the health-sector supply chain, healthcare executives and managers recognize the importance of managing upstream and downstream relationships, and the roles that sourcing, marketing, information technology, operations, distribution, finance, product development, and customer service play in the efficient and effective deployment of the supply chain.

The STF encourages research examining different types of decision problems ranging from strategic to operational that occur in various forms, including inter-organizational, group-based, and technology-enabled. Health-sector research has, and will likely continue to draw from diverse academic disciplines such as operations management, information systems, marketing, strategic management, organizational behavior, technology management, and public policy.

Building on the refocused editorial mission of *Decision Sciences*, this STF seeks manuscripts utilizing diverse research approaches, such as theoretical, empirical, and analytical research methods. Articles published in this STF must meet *Decision Sciences’* high standards of research rigor and originality, while embracing managerial relevance, not only in the research problem studied, but also in their impact on enhanced decision making. STFs consist of a collection of three to five articles that are published in a regular issue along with other peer-reviewed articles.

Topics of interest include, but are not limited to:
- Information technology integration within and between organizations
- A data-driven analysis of EMR (electronic medical record) systems
- RFID adoption and implementation in the healthcare sector
- Coordinating product design and supply chain design decisions
- Globalization of the healthcare supply chain and medical tourism
- Managing the demand for episodic healthcare delivery systems
- Development and delivery of personalized healthcare systems
- Regulatory and reimbursement considerations in supply chain management
- Managing product recalls and reverse logistics
- Avian flu pandemic and its implications for supply chain management
- Biosecurity considerations in supply chain design
- The effects of HIPPA on the healthcare delivery system
- A data-driven analysis of the consumer-driven healthcare initiative
- An in-depth data analysis of the hospital cost structure: administrative, fixed, and variable

All submissions must adhere to the format and style guidelines of *Decision Sciences* journal. Manuscripts will be evaluated on the same criteria as regular manuscripts. The evaluation process will be similar to regular paper submissions, except the Associate Editors assigned to the manuscript will be part of the STF Editorial Team.

Manuscript preparation and submission instructions can be found on the journal’s web site at: https://wpcarey.asu.edu/dsjOnline/index.cfm.

In the cover letter, please indicate that your submission is for the Health-Sector Special Topic Forum.

**Submission Deadline:** February 1, 2007

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**NAMES IN THE NEWS**

**CAROL LATTA,** Executive Director, Decision Sciences Institute

**J. P. Shim,** Professor of MIS at Mississippi State University, was recently selected as the recipient of the University’s Ralph E. Powe Research Excellence Award, which is reserved for outstanding, nationally recognized, competitive researchers. Dr. Shim is also a recipient of the John Grisham Faculty Excellence Award, and has been named as a Wireless Telecommunication Symposium Fellow. Additionally, he has been a seven-time recipient of the outstanding faculty award. Dr. Shim has served as the principal investigator for more than $1.1 million in funded grants from various sources, including the National Science Foundation, and has written over 150 research papers. He has served as the chair for the University Research Initiation Program Committee and Faculty Award Committee, and as a member on numerous university committees, including the University Faculty Research Advisory Committee.

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The Decision Sciences Institute’s 2006 Annual Meeting theme focuses on decision making at all levels that leads to organizational strategic and competitive effectiveness and increased business value. We are in the “Information Age,” and the complexity of making effective decisions has increased significantly, in part because most managers suffer from information overload. The 2006 Annual Meeting is planned around examining the tools that are used to collect, summarize, and disseminate this information.

In order to accomplish this, the 2006 DSI Annual Conference plans for a number of innovative programs, sessions, and activities, some of which are highlighted in this message.

In addition to regular paper sessions organized into 20 tracks, as we speak, individual track chairs are working hard to create invited sessions, panels, and tutorials that will include academic scholars and industry leaders. In this message, let me provide you with some information on some key events.

As we all know, business school researchers are being asked more and more to apply for grants and bring in more and more research money. As we all also know, we do not have a lot of opportunities to apply for research grants. We have to be, therefore, innovative and creative. If you want to apply for a research grant, the newly designed Miniconference on Successful Grantsmanship can help you with that. More specifically, it will provide you with an opportunity to develop your interests and sharpen your skills to write successful grant proposals. It will be a one-day event on Sunday (November 19, 2006). The morning session will feature panelists from NSF/CISE, NSF/DRMS, and NIH. They will discuss the traits of successful proposals. In the afternoon, there will be a series of breakout sessions in which successful proposal writers and experienced proposal reviewers will provide you with help on writing and reviewing grant proposals.

On the teaching side of the spectrum, Harvey Brightman on Sunday morning (November 19, 2006) will explain how to implement a successful mentoring program using current and emeritus faculty to improve teaching. Brightman claims that by using his program, instructors can make significant improvements in student evaluations and learning within one semester. It definitely will be worth your time to listen to what he has to say in this area. As you know, he is nationally renowned for providing help on how to enhance your teaching skills and how to become an effective instructor in the classroom.

On the curriculum side, the Curriculum Issues Miniconference will provide a forum for exchanging ideas and discussing curricular challenges and opportunities in business schools. Separate tracks will explore issues of interest to those who design, run, and contribute to programs at the undergraduate level. This miniconference will take place on Saturday, November 18, 2006.

On the classroom side, especially with regard to presentation, the Technology in the Classroom Miniconference can help you enhance your students’ learning experience by using state-of-the-art technology. More specifically, it will provide a forum for participants to share novel or innovative applications of technology in the classroom such as course support software, multimedia, spreadsheet software, simulation software, online tutorials, or other applications of technology.

Two faculty development programs—the Professional and Faculty Development Program and the New Faculty Development Program—will be offered during 2006 DSI Annual Meeting. If you are an experienced member of the faculty, the first program will help you keep current in your field of expertise by providing you with information on challenges and opportunities in today’s rapidly changing environment. More specifically, it will update you on new instructional and research methodologies, professional service and counseling, and meeting increasing demands in teaching, service, and research.

If you are a newly minted faculty, perhaps the New Faculty Development Program will be more appropriate for you. It will help you learn how to conduct research, how to be effective in a classroom, and how to deal with publishing and other professional development issues. More importantly, it will give you information on how to successfully juggle these.

If you are a doctoral student, you should attend the Doctoral Student Consortium, among others. The consortium will help you interact with other doctoral students and well-known scholars from across the nation and around the world. It is a one-day program and is devoted mainly to your career development. Attendance at this consortium is by invitation based on
application. Please apply as early as possible so that you can get in.

On the entertainment side, as I stated in my last message, Southern Bent, one of the Southwest’s most popular classic country western bands, will play on two evenings: Saturday (11/18) and Monday (11/20) from 6:00 to 8:00 p.m. They will bring classic country to the forefront with their approach to the old country masters. Bring your dancing shoes and enjoy these two evenings of dancing and singing to traditional country, southern rock, and a touch of Cajun.

Let me now provide you with some stats on the 2006 DSI Conference. As of May 3, 2006, we have received close to 825 submissions. In addition to a considerable number of proposals for tutorials, symposiums, workshops, and special sessions, we have received over 750 research papers and abstracts. Over 500 of these are research manuscripts. Additional abstracts and proposals are coming in at a steady pace. The submission deadline for the abstracts and proposals was May 13, 2006. For the latest information, see the conference website: http://www.dsi-2006.org/.

If you come, we can put you in a gondola on the river that flows through the San Antonio River Walk. I know it is not like the real thing in Venice, Italy, but it is as close as one can get in Texas. As you can tell, the 37th Annual Meeting of the Decision Sciences Institute is going to be an exciting event. We have reserved a block of rooms in both San Antonio Marriott hotels for the 2006 DSI Conference participants. Please plan ahead, register early for the conference, and make your hotel reservation as soon as possible at one of the San Antonio Marriott hotels. I look forward to welcoming all of you to San Antonio in November.
2006 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. Applicants for this award should submit three (3) hardcopies of their dissertation in the required format directly to the Doctoral Dissertation Award Competition Coordinator by April 3, 2006. For more information concerning this competition, please contact the coordinator.

Kenneth K. Boyer, Michigan State University, boyerk@bus.msu.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 Web site. The due date for submissions was April 3, 2006. For information concerning this competition, please contact the coordinator.

Nada R. Sanders, Wright State University, nadia.sanders@wright.edu

Best Paper Awards Competition

Best Paper Awards, sponsored by ACK (Ft. Lauderdale) and DSI, will be presented at the 2006 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.

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. The Best Case Studies Award will be presented in conjunction with the 32nd annual DSI Case Studies Workshop on “Case Techniques in the Decision Sciences.” 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).

Janelle Heineke, Boston University, jheineke@bu.edu

2006 Professional Activities

Curricular Issues Miniconference

Is your curriculum getting stale? Have you struggled unsuccessfully with program restructuring? Would you like an opportunity to benchmark world-class curricula? If so, the Curricular Issues Miniconference may be just what you need. This year’s conference will provide a forum for exchanging ideas and discussing curricular challenges and opportunities in degree-granting business institutions. Separate tracks will explore issues of interest to those who design, run, and contribute to programs at the undergraduate, MBA, and Ph.D. levels.

Hope M. Baker, Kennesaw State University, hbaker@kennesaw.edu

Doctoral Student Consortium

The Doctoral Student Consortium provides a unique opportunity for doctoral students from across the nation and around the 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.

Janelle Heineke, Boston University, jheineke@bu.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.

James R. Burns, Texas Tech University, jburns@ba.ttu.edu

See 2006 ACTIVITIES, next page.
Miniconference on Successful Grantsmanship

Applying for and securing research grants is a valuable experience and even a necessary step when the members of DSI engage in research projects that can be significantly enhanced by external research funds. The “Miniconference on Successful Grantsmanship” is designed to provide the DSI members with an opportunity to develop interests and to sharpen their skills to write successful grant proposals.

The miniconference will be a one-day event to be held on Sunday (November 19, 2006). In the morning, Common Session 1 will showcase the panelists representing major funding organizations including NSF (both DRMS in SBE and IIS in CISE) and NIH. The panel session will be followed by a networking luncheon, where the attendants will join a pre-assigned small group.

In the afternoon, the perspectives of successful grant writers will be presented in three Breakout Sessions. The breakout sessions will be contextu-alized (by discipline and type of funding organization) so that their relevance can be maximized for each attendant. The miniconference will end with Common Session 2 in which experienced grant proposal reviewers will describe what good proposals are from the reviewer’s point of view.

For any inquiries about the miniconference, please contact either of the coordinators, Godwin Udo or Q. Chung. No separate registration fee is required for this miniconference other than the registration fee for the Annual Meeting. However, you must register to attend the miniconference either by contacting the coordinators directly, or by simply checking the “Miniconference on Successful Grantsmanship” box in the main conference registration form.

Miniconference on Successful Grantsmanship Coordinators

Godwin Udo
University of Texas at El Paso
gudo@utep.edu
Q. B. Chung
Villanova University
q.chung@villanova.edu

Miniconference on Successful Grantsmanship

Successful Grantsmanship Miniconference

This newly designed miniconference will provide DSI members with the opportunity to develop interests and sharpen their skills to write successful grant proposals. It will be a one-day event to be held on Saturday, the first day of the meeting. The morning session (“Successful Proposals: The Funding Source Perspectives”) will showcase panelists representing major funding organizations such as NSF/CISE, NSF/DRMS, and NIH, who will discuss the traits of successful proposals. In the afternoon, there will be a series of breakout sessions. Various additional perspectives will be represented in the breakout sessions, including those of successful proposal writers as well as those of experienced proposal reviewers.

Godwin Udo, The University of Texas at El Paso, gudo@utep.edu
Q. B. Chung, Villanova University, q.chung@villanova.edu

Miniconference on Successful Grantsmanship

Technology in the Classroom Miniconference

The Technology in the Classroom Miniconference provides a forum for participants to share novel or innovative applications of technology in the classroom that enhance the student’s learning experience. Submissions should be limited to creative approaches and best practices for using course support software, multimedia, spreadsheet software, simulation software, online tutorials, or other applications of technology, and be capable of being demonstrated and discussed within a 20-30 minute timeframe. Submissions will be competitively reviewed and selected for their creativity, novelty, and contribution to pedagogy, and should not be duplications of material found in existing textbooks. Submission deadline was May 1, 2006.

Laura L. Hall, University of Texas at El Paso, lhall@utep.edu
Ceyhun Ozgur, Valparaiso University, Ceyhun.Ozgur@valpo.edu

Miniconference on Successful

Grantsmanship

Ceyhun Ozgur, Valparaiso University.
Ceyhun.Ozgur@valpo.edu
2006 DSI Annual Meeting

2006 Doctoral Student Consortium

Creating successful career paths for students
Co-sponsored by McGraw Hill/Irwin, Baruch College (CUNY), Beta Gamma Sigma, and DSI

DSI’s 24rd 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 18, 2006, at the 2006 DSI Annual Meeting in San Antonio, Texas.

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, accounting, and other areas will increase the vitality of the sessions. The program will focus on career goals, job search issues, placement services, research 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 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, 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 2006. 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.

Meet the Editors and Academic Reviewing. 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 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 2006-2007, 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 Consortium. Those wishing to be included should submit:

1. A current curriculum vita, including contact information (e-mail in particular), your major field (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 Robb Dixon & Janelle Heineke, Doctoral Consortium Co-Coordinators, by July 30, 2006. 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 of $45 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 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.

2006 Track Chairs

**Accounting: Theory, Applications, and Practice**
Srini Ragothaman, University of South Dakota

**Business Value Generating Innovative Technologies and Methods**
Nigel Melville, University of Michigan

**Case Studies**
Chandra Shekar Challa, Virginia State University

**DSS/AI/Expert Systems**
Peter Mykytyn, Southern Illinois University

**John Windsor**, University of North Texas

**E-commerce**
Huseyin Cavusoglu, Tulane University

**Finance/Financial Management**
Paul Swanson, University of Cincinnati

**Manual J. Tarrazo**, University of San Francisco

**Information Systems**
Nathalie Mitev, London School of Economics

**Lyneth Kvansy**, Pennsylvania State University

**Innovative Education**
Jo Ann Duffy, Sam Houston State University

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

**Invited DSI Fellows Papers**
Jack C. Hayya, Pennsylvania State University

**Knowledge Management**
James R. Courtney, University of Central Florida

**Brian Lehane**, Coventry University, UK

**Manufacturing Management and Practice**
Binshan Lin, Louisiana State University

**Marketing: Theory Models and Applications**
M. B. Myers, University of Tennessee

**MS/OR: Techniques Models and Applications**
William E. Stein, Texas A&M University

**Organizational Behavior**
**Organizational Theory**
Thomas Callahan, University of Michigan

**Quality**
Don G. Wardell, University of Utah

**Service Management**
Steven Yourstone, University of New Mexico

**Statistics and Decision Analysis**
Philip J. Mizzi, Arizona State University

**Strategy and Policy**
Sid Das, George Mason University

**Supply Chain Management**
E. Powell Robinson, Texas A&M University

**Tim Butcher**, University of Hull, UK

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*Doctoral Consortium Co-Coordinators*
J. Robb Dixon and Janelle Heineke
Operations and Technology Management Department
Boston University School of Management
595 Commonwealth Avenue
Boston, MA 02215
jrdixon@bu.edu; 617-353-5243
jheineke@bu.edu; 617-353-2919
The New Faculty Development Consortium is for faculty in the beginning of their 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 open to faculty members who have earned their doctoral degree and are in the first three years of their post-doctoral teaching career.

The consortium will last a full day on Saturday, November 18, 2006. It will include interactive and panel sessions with faculty at varying stages of their careers. Also, the journal editors of Decision Sciences, Decision Sciences Journal of Innovative Education, Journal of Operations Management, and Production and Operations Management will be featured. The consortium will also provide many opportunities for interaction and networking with peers and more experienced colleagues. The content of the sessions offered is designed to provide insight into the challenges and opportunities in today’s rapidly changing environment.

Topics include, but are not limited to, the following:
- Your personal concerns about being a faculty member
- Knowing tenure policies at different schools
- Balancing the needs of different stakeholders (students, corporations, review committees, alumni, etc.) in the educational process
- Publishing strategies
- Obtaining research funding
- Career path strategies
- Building an academic portfolio

Faculty in all business disciplines who have finished their doctorate and are in the first three years of their post-doctoral teaching career are encouraged to participate. Applications, using the form below together with a recent vita, should be submitted by September 15, 2006. Participation is limited to the first 50 qualified applicants. Each participant will be expected to register for the Institute’s 2006 Annual Meeting in San Antonio. No additional fees are charged for the consortium.

Direct all inquiries and applications to:
James R. Burns
University of San Diego
School of Business Administration
KIPJ-272
San Diego, CA 92110
(619) 260-4854
jburns@sandiego.edu

Application for
New Faculty Development Consortium
November 18, 2006 • San Antonio, Texas

Send in this form and a current copy of your vita to either one of the consortium coordinators (see above) by September 15, 2006.

Name: ____________________________________________

Research interests: ____________________________________________

Current institution and year of appointment: ________________________

Teaching interests: ____________________________________________

Mailing address: _____________________________________________

Major concerns as a new faculty member:

_______________________________________________________________

Year doctorate earned: _______________________________________

Phone: ________________________________

Fax: ________________________________

E-mail: ________________________________

Have you attended a previous DSI Doctoral Student Consortium?

____ yes  ____ no

If so, when? ________________________________________
at the international level. Why? Because it has provided me with a forum to present my research and to have a continuing dialogue with colleagues with similar research interests. It has also provided me with the opportunity to obtain an international perspective with respect to business through invitations to teach/present in different countries. And most important, it has provided me with the opportunity to meet other individuals who have become more than just professional acquaintances, but rather life-long friends and colleagues.

My primary goal this year as president of DSI is to provide others, especially those who are just entering the academic profession, with the same opportunities that DSI has provided me with over the past 25 years. To do this, I have identified two major objectives to be accomplished this year based on feedback we have received from recent focus groups. These are to (1) continue to improve communication between the Institute and its members and (2) enhance the value of being a member of DSI.

To accomplish this, I am focusing on three areas, which are (1) redesign of the DSI Homepage so that it is more user friendly, (2) continued improvement of the DSI Conference Information System so that it is both more user friendly and has the required capabilities to meet the needs of our various stakeholders, and (3) the creation of miniconferences/workshops that will be independent of our Annual Meeting and that focus on emerging multidisciplinary topics such as business process management and knowledge management. I will talk more about these miniconferences and workshops in my next letter.

I would very much like to hear from you if you have additional suggestions for how DSI can add value for you and your career. My email address is mdavis@bentley.edu.

Finally, I want to thank you for electing me President of DSI. It is truly an honor and a privilege to serve the Institute in this capacity.

My primary goal this year as president of DSI is to provide others, especially those who are just entering the academic profession, with the same opportunities that DSI has provided me with over the past 25 years.

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ACCOMPLISHMENTS, from previous page

sions data, especially to the Decision Science Journal, submissions from international authors are up significantly. This may be partly a result of the elimination of the submission fee, but is also due to the efforts of the editor and the Publications Committee.

While not everything has been accomplished that I hoped would be, I do believe that significant progress has been made this year. Groundwork has been laid for the future, and with the able leadership of Mark Davis and the incoming Board of Directors, I am confident that the Institute will continue its path of improvements. Thanks once again for allowing me to serve as your President. It was both an interesting and a productive year.

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DSJIE Vacancy, from page 38

and awards, professional affiliations and activities, and other relevant items.

2. Description of editorial experience with scholarly journals or other publications.

3. Statement of interest and availability to serve as Editor, including a description of anticipated academic and professional responsibilities for the next three years.

4. Statement of editorial philosophy, including views on editorial policy, directions the publication should take, and composition of and approach to working with Associate Editors (potentially) and the Editorial Review Board.

5. Brief description of administrative, organizational and managerial experience.

6. Description of institutional commitment for the support of the editorial office for the next four years.

The commitment of support should include release time for the Editor, adequate local secretarial support, sufficient funding for supplies, postage, fax and telephone charges, and computing and other related expenses.

The policy of the Institute regarding the timing of the appointment of an Editor is as follows. The appointment of the new Editor by the Board of Directors shall be finalized at least three months before the new term of editorship is to begin, so as to allow the newly appointed Editor to work with the outgoing Editor for familiarization with the editorial procedures and process and for the replacement of Editorial Review Board members and possible Associate Editors.

To meet this objective, the due date for nomination/application for the position will be November 1, 2006. The new Editor would assume this position effective January 2008. The new editor and his/her staff will have to begin the transition process at least three months prior to assuming editorial responsibilities.

Direct all inquiries and proposals to:

Linda Sprague, Chair,
DSI Publications Committee,
CEIBS, Shanghai, China,
lgsprague@ceibs.edu