INFORMS Roundtable Spring Meeting Agenda
April 17-18, 2010
Bonnet Creek Hilton
Lake Buena Vista, FL

THEME: "Roundtable Companies – Why Math Isn't Enough"

<u>**Saturday, April 17**</u>

Afternoon at your leisure

4:45PM   *Depart hotel for Sleuths Mystery Dinner*   *Meet in Hilton Lobby*

Please arrive at the Hilton lobby by 4:45pm to board the shuttle bus.

5:30PM   *Cocktail Reception at Sleuths*

6:30PM   *Sleuths Mystery Dinner*

Bring your investigative skills, your appetite, and be prepared to laugh your way through the evening at Sleuths Mystery Dinner Shows. Sleuths is like a living clue game, where you become the detective and help us solve the crime. You'll be kept on the edge of your seat as you enjoy a delicious dinner and dessert with unlimited beer, wine and soft drinks. Our nightly performances feature one of our thirteen original comedy mysteries.

Meals options include:
- Honey Glazed Cornish Hen
- Four Cheese Lasagna (Meat or Vegetarian)
- Prime Rib

9:00PM   *Depart for hotel*

<u>**Sunday, April 18**</u>

7:00AM   **Continental Breakfast**   *Floridian Salon C*

8:00AM   *President's Welcome and Member Introductions*   *Floridian Salon L*

8:30AM   *Session 1: Brian Lewis, Vanguard Software – "Vanguard Software:*
               From Math to Process"

Vanguard Software is a forecasting and optimization-based planning software company with over 2,000 customers in 60 countries and every major industry. Over the last 15 years, Vanguard Software's philosophy towards decision making and decision support technology has evolved a great deal and the Roundtable meeting's subtheme of "Why

Math Isn't Enough" is very apropos. This presentation will describe Vanguard's evolution from a developer of single-user, desktop tools for the most hardcore of modelers to one that focuses on facilitating the *process* of making business decisions. Their flagship product, Vanguard System, integrates advanced analytics such as forecasting, optimization, and simulation with collaboration features, interactive and dynamic reporting, and Web-based delivery for global access.

Brian Lewis, Ph.D., is Vice President for Professional Services at Vanguard Software. In this position, he is responsible for all aspects of Vanguard's consulting, custom solution development, technical support, and training services. Prior to Vanguard, he worked for Ford Motor Company, Providian Financial, and United Parcel Service (UPS) and received degrees from Georgia Institute of Technology, University of Michigan, and University of California, Berkeley, all in the field of operations research. Brian is currently the Chair of the INFORMS Public Information Committee and a Representative on the INFORMS Roundtable.

9:15AM   *10 minute Break*

9:25AM   *Session 2: Bill Browning, Applied Mathematics – "Some Applications of Mathematics"*

Applied Mathematics, Inc., has conducted operations analysis studies and research and development for government and industry clients for thirty years. Examples in the areas of submarine warfare and vineyard analytics will be described. Lessons learned and changes seen in consulting engagements will be discussed.

Dr. William J. Browning is Founder and President of Applied Mathematics, Inc., with offices in Gales Ferry, CT. For the past 36 years, his work has principally focused on applications of mathematics to naval operations. He has embarked as a technical adviser on over thirty U.S. and United Kingdom nuclear submarines and naval aircraft conducting operations throughout the world. He has led over 150 consulting projects in a variety of areas including submarine warfare, Coast Guard Search and Rescue, clinical informatics, fluid flow control, coastal radar ship tracking, vineyard analytics and laser eye surgery.

Dr. Browning received a Meritorious Public Service Citation from the Chief of Naval Operations for his work in submarine search theory and sonar systems employment, a Distinguished Alumni Award from Purdue University College of Science and the Naval Submarine League Distinguished Civilian Award. He serves on the Naval Submarine League Advisory Council and Submarine Review Editorial Committee. He is a reviewer for the American Society of Enology and Viticulture. He has been a member of INFORMS Roundtable for twelve years.

10:10 AM   *10 minute Break*

10:20AM   *Session 3: Sean Devine, Con-way Freight – "Overview of OR at Con-way Freight"*

At Con-way Freight, Operations Research is an integrated component of the engineering infrastructure that enables the continuous improvement of the company's strategy and processes. In addition to Operations Research, the engineering infrastructure includes Strategy Management, Lean Six Sigma, Business Intelligence and Enterprise Architecture. Key to the success of engineering has been the balanced maturity of engineering capabilities, the cross-functional adoption of standardized engineering processes, the talent level of the engineering team, and the steadfast support of executive management.

In this presentation, Sean Devine, Vice President of Pricing and Engineering at Con-way Freight, will describe how they built their engineering infrastructure in less than three years and how they have balanced resources, roles and responsibilities to maximize their return on their investment. He will provide specific examples, results and lessons learned.

Sean Devine joined Con-way Freight in 2007 and was a key architect and leader of the reorganization and transformation of the company. He is responsible for Pricing, Billing, Strategy Management, Lean Six Sigma, Business Intelligence, Operations Research and Enterprise Architecture. Prior to Con-way, Sean provided supply chain software and consulting solutions to other large enterprises. He has his B.S. in Finance from Babson College.

11:05 AM   *10 minute Break*

11:15AM   ***Session 4: Colin Kessinger, End-to-End Analytics – "Thank Goodness the Math Isn't Enough"***

Ten years ago I co-founded a company hoping to integrate concepts from financial engineering and supply chain management and deliver a software platform that enabled organizations to effectively manage sourcing related risks. About three years into this, I had an epiphany when our chief sponsor at our biggest customer described our software as being similar to a prayer rock - its not clear whether it actually does anything, but it certainly brings people together and forces and right conversation, and in doing so creates a lot of value. My initial response was "ouch." And then I figured it out. Quite often it is about the question and not about the answer. Since then, we have spent most of time building solutions to do exactly this – provide unbiased, transparent, visually supported analytics that facilitate, rather than make, complex decisions. This presentation will review several of the examples from project work, highlighting examples where math was not enough.

Colin Kessinger has spent the majority of his career focusing on the application of quantitative techniques to risk management, supply chain flexibility, capacity planning, and strategic contract design. His consulting work includes projects in the capital equipment, high tech, electronics, semi-conductor, telecommunications, office equipment, food and beverage, apparel, and automotive sectors. He also co-founded Vivecon Corporation to commercialize a risk-management framework for managing demand and supply uncertainty. This framework was an outgrowth of his research as an Assistant Professor of Operations at the University of Michigan, where he focused on

supply chain flexibility and contract design. As a result of this work, he holds several patents in the area of Supply Chain Risk Management. He continues to teach on a periodic basis at Stanford and Berkeley. Colin holds B.Sc. and M.E. degrees in Operations Research and Industrial Engineering from Cornell University, and a Ph.D. in Industrial Engineering and Engineering Management from Stanford University.

12:00 PM   Karl Kempf, Intel – "Why Math Isn't Enough"

In the 20+ years of building decision support systems at Intel Corporation, we have employed a wide variety of mathematical techniques. While the mathematics has been the foundation of all of the systems we have implemented in the business, it has always been the easiest part of the project (not easy, but relatively easiest). It has always been a struggle to identify, collect, and maintain the appropriate data, too often involving squabbles among the data "owners". It has always been a challenge to develop the graphical user interface to map back and forth between the computer representation and human representation of the decision problem, especially if multiple users are involved. But the most critical factor in every one of our projects – the factor that is the best predictor of success – is the relationship between the decision science team and the intended users of the decision support tools in the business. They must believe that we have a deep understanding of their decision problem including their organizational dynamics and success indicators. We have to include them in the model building process so that the decision support tool is not a "black box" to them even though they probably will not develop a deep understanding of our mathematics. We have to support them over time as the business morphs and the decision support tools have to keep pace.

In striving to master these relationship builders, we have been repeatedly surprised by two commonalities. The first is that no Vice President level decision makers or above have ever requested assistance from us. It has always been their trusted advisors or below. The second is that the folks who do approach us for assistance never ask for an "optimal" solution. They want us to get them into the neighborhood of very good answers and let them play out all of the what-ifs they can think of very quickly. The lunch discussion is intended to compare the experiences of the members on these points.

Karl Kemp f is In tel's Directo r of Decision E ngineering, a m ember of the National Academy of Engineering, and an adjunct professor at Arizon a State University. His team at Intel was awarded the 2009 INFORMS Prize. At Intel he currently focuses on product design decision problems and previously was responsible for production and supply chain decision support system s. Prior to joining Inte l he contributed to th e computerization of cinematic special effects at Pinewood   Studios in England and the on-board computerization of racing vehicles at Ferrari in Italy. Kempf holds a B.S. in Chem istry, a B.A. in Physics, a Ph.D. in Applied Mathem atics, and completed post-doctoral studies in Computer Science.

12:20PM   Transition to lunch area

12:25PM   Lunch & Discussion: "Why Math Isn't Enough"   *Floridian Salon C*

1:25PM   Transition back to meeting area

1:30PM   *Roundtable summary of lunch discussions*   *Floridian Salon L*

1:50PM   *Session 5: Randy Robinson, Chair, CPMS – "CPMS: Past, Present, and Future"*

CPMS (meaning originally "College on the Practice of Management Science"), along with the Roundtable, has championed practice in The Institute of Management Sciences (TIMS). After TIMS and the Operations Research Society of America (ORSA) merged to create INFORMS, CPMS merged with the BAS (business applications section) from ORSA. Over the years CPMS organized numerous practice events, but is best known for having nurtured and grown the Edelman Award competition and the Wagner Prize competition. At present CPMS is focused on two major activities. First, it supports enthusiastically the INFORMS practice committee, led by Jack Levis, which currently is addressing the "analytics" situation. Also, CPMS is working on implementing a recently approved "vision and mission statement," that in essence calls for expanding the range of CPMS activities so as to better serve practitioners.

Randy Robinson is formally retired but still active after roughly four decades as an ORMS practitioner and executive, primarily in business. As a volunteer he was chair of the ORMS Board that presided over the merger of ORSA and TIMS to create INFORMS, and was the last person elected president of TIMS prior to the merger. Then he served as founding executive director of INFORMS. He has chaired various INFORMS committees including those for the Fellow Award, the Morse Lectureship, the Kimball Medal, Continuing Professional Education, Public Information, and the Franz Edelman Award. Randy earned the degrees S.B., S. M., and Ph.D. all at MIT, where he was a Ford Foundation Doctoral Fellow.

2:35PM   *Break*

2:45PM   *Meeting with INFORMS President-Elect, Rina Schneur*

The Roundtable is an important group of INFORMS. In our joint session, I would like to focus on three areas. (1) INFORMS strategy – the role and work process of the Strategic Planning Committee, the challenges of making things happen and having impact rather than stay at a discussion level, and how the Roundtable can participate. (2) Practitioners-oriented publication – what types of publications, missing currently from the Informs portfolio, will be useful or desirable to you, and doable to launch. (3) The OR community helping in Global causes – my interaction with non-profit organizations such as the Clinton Foundation and how OR and the INFORMS community can work with them. Finally, I would like to leave time for open discussion, so please bring up any desired questions/topics.

Rina Schneur is Director of Performance, Reliability and Modeling, at Verizon Laboratories. She was recipient of the coveted Edelman award in 2004. Currently INFORMS President-Elect for 2010, she has held numerous INFORMS leadership positions over the past ten years, including VP meetings (2005-8) and Chair of Practice meeting (2005). Schneur holds a B.S. in Civil Engineering from Technion (Isreal), and a MS and PhD in Transportation from MIT.

3:45PM   *10 minute Break*

3:55PM   *Session 6: Mitchell Burman, Analytics Operations Engineering –*
            "Overview of Analytics"

Organizations often seek help improving operations from: 1) **Academia,** for innovative, inexpensive solutions, though lead times can be long; 2) **Off-the-Shelf Software,** though it often requires costly customization; or 3) **Traditional Consultants** that are often expensive and where their solution quality sometimes suffers due their generalist model. Analytics provides dedicated teams, applying the latest operations engineering technology at a reasonable price. It is primarily MIT PhDs and since its inception, Analytics' project successes have been measured by the quality and value of execution. In almost all of our cases, math is only one part of the solution. A review of our case history highlights a set of steps we have used to achieve successful executions. I will lay these steps out within the context of our most interesting work.

Mitchell Burman founded Analytics in 1994 while earning a Ph.D. in OR from MIT. He was a runner up for the Edelman Prize for his work at HP. Dr. Burman has taught at MIT and the Wharton School. He continues to be active in improving the effectiveness of businesses through the active participation in many of Analytics' projects.

4:40PM   *Analytics Magazine Overview – Gary Bennett*

Analytics magazine is INFORMS outreach vehicle to the broad analytics community. Analytics magazine is doing well – it has been well accepted by the target audience and is on sound financial footing. However, we would like it to do even better for several reasons – it is one of the main member recruitment tools employed by INFORMS, it will likely become an even more important engagement vehicle as INFORMS strives to serve the more general analytics market in the future, and INFORMS has a considerable financial stake in Analytics.   Gary will review results of the recent reader survey, discuss readership statistics and trends, review marketing tactics to date, and ask for Roundtable help in the promotion of Analytics.

Gary Bennett is Director of Marketing at INFORMS. Gary leads a staff of five at INFORMS that is responsible for membership marketing, meetings marketing, publications marketing, graphic design, and web site design. Initiatives Gary has led include the overall redesign of INFORMS website, introduction of social networking techniques and sites as marketing tools, Analytics magazine, and INFORMS Video Learning Center. Before coming to INFORMS, Gary marketed meetings, journals, and membership on behalf of the American Society of Clinical Oncology. Before ASCO, Gary marketed 10 society journals on behalf of Lippincott Wilkins and Williams. Before that, Gary spent 13 years in various marketing and product management capacities for the Bureau of National Affairs, Inc., a leading legal and business information publisher in Washington, DC. Altogether, Gary has spent over 20 years in various association and publishing marketing roles. Gary earned his MBA in Marketing at Virginia Commonwealth University in Richmond in 1986.

5:00PM   *Roundtable Business Meeting*

5:15PM   *Conclude ROUNDTABLE Meeting*

<u>Tuesday, April 20</u>

6:00PM   *Informal Networking Dinner (Dutch Treat)*

The Dutch Treat Dinner will be held at:

       Portobello Yacht Club, Downtown Disney

       Participants should meet in the lobby of the hotel at 5:30