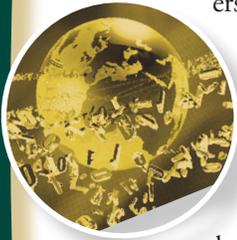


# Bits & Bytes

The newsletter of Information Systems & Decision Sciences

Spring 2013

## Chair's Message, Kaushal Chari



From using purchase data to predict what customers will buy next to analyzing what traits are most desirable in prospective employees, experts who can make sense of data are in high demand in the corporate world. At USF, we truly believe that by demanding that our graduates understand “big data” and know how to extract valuable information from it will help them find better jobs and will help us establish a reputation as the place where top employers come to find talent.

The College of Business has been writing its strategic plan for the next five years and, as part of our quest to establish a distinctive identity, we will focus on business intelligence and data analysis and infuse more of this content in our curriculum. We will include this emphasis on analytics and critical thinking in our strategic plan.

One of our first steps in this direction: a fully online MS/MIS program focused on business intelligence that will train professionals in the new generation of information technology. The online program, which launches in May, leverages the deep expertise of world class ISDS faculty and is expected to be popular with working professionals who cannot attend USF's on-campus program due to work schedules or geographical constraints. Learn more about the online program at <http://uc.usf.edu/mis/>.

A second step: building a data analytics center that would offer advising, education, and networking opportunities related to analytics and business intel-

ligence. I invite you to talk with us about some of your projects that students and faculty who are part of this center might tackle.

While we are excited about these first steps, budgetary challenges hinder our walk. Fortunately, friends such as scholarship donor Saru Seshadri (pictured with me here) are helping us face such hindrances (see page 2).



Our advisory board members are helping, too. They supported our inaugural “Breakfast with a CIO” event in November, which featured FedEx CIO (and USF MBA alumnus) Rob Carter. Be sure to read more about that event on page 6. Thanks to event sponsors TechData, FedEx, and Jagged Peak – and our business community supporters – this fund raising event was a grand success.

The breakfast was just a start, though! The ISDS Advisory Board is chasing a fund raising goal of \$200,000, and we are counting on you, our alumni, friends, and corporate partners, to help us reach it.

*K Chari*

Kaushal Chari  
Professor & Chair, ISDS

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## ISDS News: FedEx CIO Offers Insight into Future of Technology



Speaking before a crowd of industry professionals and USF students, FedEx Chief Information Officer Rob Carter (pictured at right with USF College of Business Dean Moez Limayem) said the technology boom of this century is only beginning.

Before Abraham Lincoln's election, Carter said, there were eight different gauge widths of railroad track used by railroads across the country, making it impossible to take one train cross-country.

When Lincoln was elected, he unified the nation railroads, and, by extension,

*continued on page 6*



## Faculty Focus: Moez Limayem

*In July 2012, Moez Limayem joined the College of Business as the new dean and the ISDS Department as a tenured professor. Here is a brief profile.*

According to new business school dean Moez Limayem, joining the ISDS faculty was part what attracted him to USF. Limayem had ties to USF's ISDS department even before accepting the leadership position, having conducted joint research with ISDS Professor Anol Bhattacharjee.

He is impressed by the depth and breadth of the ISDS department and the varied areas of the information systems field included in the curriculum. In particular, he likes the department's close ties with the business community and its new initiatives such as the online MS/MIS program.

Limayem enjoys being engaged as a productive member of the department and the MIS academic community, in addition to performing his duties as dean. He plans to participate in an ISDS PhD seminar class in spring 2013.

Limayem discovered his passion for Management Information Systems as an undergraduate student. Then, he studied computer science as applied to management. Before pursuing MBA and PhD degrees in business administration at the University of Minnesota, he worked as a systems analyst and computer consultant. In his post-doctoral academic career,

Limayem's research has focused on information systems and their usage, such as in his co-authored book "Understanding the Use of Technology-Based Self Service: The Consumers' Point of View." Limayem is also regarded as an expert on how social media and other information systems enable social and political change.

Recently, he explored the use of mobile technology in challenging situations. His research started a few years ago after a colleague at a university in Switzerland died while texting and driving.

"The more research I started doing, the more I realized how widespread this problem is," said Limayem. "I felt that I owed it to my friend to understand this phenomenon and find solutions."

In addition to his information systems background, Limayem brings vast international experience to the college. He is proud to have lived in four continents. He hails from Tunisia and has taught in universities in Hong Kong, Switzerland, Canada, and the United States. Limayem's vast international experience has helped him serve as an IT expert for UNESCO. On his international experience, Limayem said, "there is never a boring moment!" §

Maintream media has recently featured some of Dean Limayem's research related to the use of cellular phones and driving. Links to the several clips can be found online at <http://limayem.com/news.asp>.

## Alumnus Spotlight, *continued from page 4*

### **Are you hiring and what skills do you look for in new hires?**

We are seeking people with strong data mining, NLP (natural language processing), web development, and mobile development skills. We have an entrepreneurial work culture, and we look for team players with strong work ethics who enjoy doing technical work.

### **What is your advice to aspiring Internet entrepreneurs?**

Carefully find the right confluence of market opportunity and their strengths and desires before jumping in, and to give it their best after taking the plunge. It's easy to start an Internet business but quite difficult to scale it to large global audiences. You need to build solid products and inspire your customers to market it. Internet companies can provide rapid rewards, but there's a lot of competition, so be ready to work hard to stay on the cutting edge. §

## Ultramatics Establishes ISDS Scholarship

Saru Seshadri, CEO of Ultramatics gave a gift of \$37,500 to establish the Ultramatics Endowed Scholarship for ISDS students. It is expected that the endowment will generate approximately \$1500 a year in scholarship money to support ISDS students undertaking study abroad programs or on-campus degree programs. According to Kaushal Chari, ISDS chair, this is the largest endowed scholarship in the ISDS Department history so far. "This scholarship will provide an opportunity of a lifetime to many our students to pursue study abroad programs," Chari commented.

# Student Success: Geoff Brophy

## Student Spotlight



*Geoff Brophy is one of our graduating seniors. Please find below, a brief profile, including tips on leveraging MOOCs to build on the offerings in the program.*

After working for seven years in the financial services industry and seeing the turmoil caused by the recent recession, Geoffrey Brophy returned to USF in January of last year to major in MIS. His previous exposure to the business world included working with backroom financial processing for a major bank processing company, earning a Series 7 Securities License, and working in the retail sale of investment products.

Upon returning to school, the computer skills that he had relegated to hobby became a useful asset.

“I would really encourage my classmates to learn as much about the current technologies as possible,” he said.

Before starting at USF, Brophy had taken advantage of many of the free courses that were offered over the Internet, such as on Open Courseware and Udacity. He learned the basics of C++, Python, and COBOL. Due to Brophy’s experience with COBOL, Professor Richard Will used him as a teaching assistant in a Mainframe Technologies class.

Although his prior experience gave him a head start in the MIS program, Brophy credits the ISDS Practice Center with giving him the opportunity to connect with local businesses. He heard about an opportunity to intern with a local company through the ISDS Practice Center over the summer, and interviewed

with three companies sponsoring practice center projects. Brophy received an internship offer to work on the JPMorgan Chase project, which he promptly accepted.

Brophy interned with JPMorgan Chase and also assisted Professor Will as a teaching assistant in addition to carrying a 14 credit-hour workload of classes.

“I will never forget how hard that semester was for me,” he said, “but I will also never forget the opportunities that I have been given through USF.”

During the ISDS Practice Center internship, he worked on an out-of-the-box instance of Project Server 2010, a project management server that sat on top of a SharePoint Server 2010. The exposure to project management and the opportunity to work in a professional environment while still in school gave him an edge in the job market. Brophy and fellow ISDS Practice Center project partner Leila Elorfi were able to take the project server software from the point of a “blank slate” to a workable model that could be used for project management throughout the organization.

According to Brophy, “the learning curve was very steep. JPMorgan Chase provided tremendous learning opportunities along the way, including project management, SharePoint, and JavaScript to name a few. While the pace was swift, we had exposure to demand management, proposal selection, project planning, project execution, and resource allocation. I am so happy that I took the step to apply at the ISDS Practice Center when I did.”

Brophy credits his exposure to the Systems Development Life Cycle concepts at USF for his successful project at JPMorgan Chase, and encourages other students to pursue additional opportunities the department offers.

“In hindsight, the thing that I would have done differently would be to take advantage of the workshops that were offered by the ISDS Department,” he said. “I think that these courses can truly prepare students for many of the challenges and technologies they will see in the workplace,” he said.

Brophy, who will graduate in May 2013, has accepted a full time position at JPMorgan Chase. §

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# Questions and Answers

## Alumnus Feature: Alok Ranjan



*Alok Ranjan is the Founder and CEO of successful new media ventures iFood.tv and NutritionRank.com. He was recently featured in the New York Times and for our newsletter, talks about the MIS program at USF and his success as an entrepreneur.*

### **Tell us about your USF/ISDS experiences.**

I pursued the master's degree program while working at a full-time job with HSN with the desire to be a well-rounded technology professional. My USF experience was thoroughly enjoyable, and since I was passionate toward my education I was able to graduate with a 4.0 GPA.

My job was mostly focused on enterprise tools, so the "Distributed Information Systems" class with Professor Manish Agrawal was a new and stimulating learning experience for me. It fostered my interest in online video, which ultimately led to the successful launch of iFood.tv, the largest online food video site on the Internet.

On the management education side, I had fun in the "Managing International Cultural Differences" class with Professor Alan Balfour. It helped me develop better appreciation for diversity. Lessons in cultural diversity turned out to be very important to my business at iFood.tv, since one of the keys to its success is our superior focus on niche food audiences such as Irish, German, Indian, Cuban, vegan, diabetic, and others.

I also enjoyed my independent study, guided by Professor Donald Berndt. I focused on big databases and explored potential solutions for challenges related to big data mining. Much of what I learned during that time was

critical later on to our ability to build complex algorithms and data management systems creating a ranked list of all foods for [nutritionrank.com](http://nutritionrank.com).

One of the most exciting parts of my experience was taking some of the classroom learning and applying it to my job the very next day, mixing theory and practice. My classmates appreciated my live practical examples, and my colleagues liked my sharing of new knowledge with them.

### **What do you remember as the most useful thing about your USF/ISDS experience?**

The USF MS helped me become a better product manager. I learned that the beauty of an exceptional information system lies in its simplicity and usability, not in the power and complexity of the technology.

### **What was your career path like after USF?**

My education helped me with faster career growth at HSN as my managers appreciated my broad-based knowledge and enhanced cross-team skills. Later on, I pursued a full-time MBA from Columbia University. During my MBA studies, I was exempted out of many basic courses at Columbia, thanks to my USF education. While pursuing my MBA, I also worked as a consultant for North Atlantic Capital, advising their portfolio companies and learning a lot about why startups fail.

After graduation, I joined Microsoft as a senior business strategy manager. I gained valuable experience in strategic planning and marketing management. Management of large businesses like Microsoft is data driven, and the ISDS education came handy even in strategic planning.

### **Tell us about iFood.tv.**

My experiences, interests, and marketing analysis motivated me to take the entrepreneurial plunge and launch iFood.tv. While in the long term I plan to expand to other areas, I started with food due to its universal appeal and greater potential brand recognition. Currently, iFood.tv attracts more than nine million unique website visitors each month, and we have offices in Tampa Bay, Silicon Valley, and New Delhi. We have hundreds of food channels that include Italian, Mexican, Kosher, Chinese, healthy and vegetarian options. iFood.tv is available world wide through technology incorporated into certain television sets or by set-top boxes such as Roku. We also offer mobile applications and syndicate our videos to other websites.

# Research Feature



*Wolfgang Jank recently published a study on the business relevance of online trust seals in Information Systems Research, a premier MIS journal. A summary of this research is below .*

Online trust issues have frequently been cited as the main reason why people hesitate to shop online. Although the share of e-commerce in total US retail sales has steadily increased from 0.7 percent to 3.7 percent over the last decade, online retailers are yet to fully reap the benefits of online commerce. Unlike brick-and-mortar stores that have physical existence and are normally located nearby, customers shopping online might be dealing with an unknown retailer. Uncertainty about the quality of the products listed on the website, the security of payment process, the reliability of shipping, the protection of a customer's privacy, and the credibility of service terms, among others, add to the risks perceived by online shoppers. Among the various mechanisms used by online retailers to engender trust among online shoppers, trust seals have been the most long-standing and the most pervasively used mechanism. Trust seals are typically offered by a third-party, also known as seal providers. To obtain a trust seal, an online retailer typically goes through a certification process administrated by the seal provider. Upon qualification, the retailer is offered the right to display the trust seal on its website. For instance, the TRUSTe seal certifies that the online retailer has a privacy policy and treats the private data of shoppers confidentially. Likewise, VeriSign certifies that the payment process uses digital certificates and secure SSL connections.

Despite their popularity, the practical impact of trust seals on online transaction outcomes has been inconclusive. While some studies find that trust seals related to privacy protection can enhance customer trust, others do not find any significant impact. One possible explanation of the discrepancy is that the above studies use either controlled experiments in lab settings, or surveys. Limitations relating to the design of the experiments, the survey instruments, or the choice of subjects could be some reasons for the inconclusive findings. On the other hand, large scale empirical evidence on the effects of the trust seals on transactional outcomes has been scarce.

In this study, we exploit a unique dataset of more than 200,000 transactions to examine the impact of trust seals on transactions. One key aspect of our data is that it is generated from a randomized test: the seal provider, in agreement with the online retailer, conducted "A/B tests" during a specified period to measure the impact of its assurance seal on key site metrics.

In this test, the retailer allowed the seal provider to display the seal to 50 percent of website visitors (referred to as "A"s) and not the other 50 percent (the "B"s). The visitors were randomly designated as either an A or a B, ensuring that the only systematic difference between the two sets of visitors is the presence or absence of the seal. Thus, our data, for the first time, allows retailers to measure the causal impact of the assurance seal on visitors' shopping behavior.

Our results show that the presence of the seal increases conversion rates from 2.90 percent to 5.33 percent, which constitutes an increase of about 84 percent. More importantly, this increase in conversion rates translates into an increase in revenue of about 113 percent.

Our study has implications not only for seal providers and online retailers, but also for policy makers: While the lack of institutionalized regulation has arguably contributed to the rapid growth of online commerce, it has also led to the emergence of fly-by-night operators, making it difficult for consumers to credibly gauge an online retailer's quality. Our study highlights the importance of quality assurance and certificates in e-commerce. Consumers, retailers, and the market as a whole would benefit from regulatory oversight that holds third-party certifiers to high standards. §



“The Value of Third-Party Assurance Seals in Online Retailing: An Empirical Investigation” Gordon Gao, Koray Ozpolat, Wolfgang Jank and Siva Viswanathan, forthcoming at Information Systems Research, (Dingman Center Best Paper Award, 2011)

# FedEx CIO Discusses Tech Future, *continued from page 1*

the country. Carter said that despite the leaps and bounds of technology in the past few decades, we are still in the technological equivalent of the eight-gauge railroad era.

“We have not yet reached the core dominant design technology that will allow us to connect in the long-term,” Carter said.

Carter, who holds an MBA from USF, made that analogy at the Information Systems Decisions Sciences Department’s first “Breakfast with a CIO” event on November 30th. The event, which was sponsored by Tech Data, FedEx, Jagged Peak, and many other companies, drew 140 attendees and gave Tampa’s IT community and USF students a chance to hear from a leader in information technology. Proceeds from the event supported the Information Systems Decision Sciences Department.

“Partnerships and engagement with businesses is absolutely one of our top priorities,” said Moez Limayem, College of Business dean, in his introduction of Carter. “We will certainly have more of these wonderful events.”

At the breakfast, Carter spoke extensively about the history of FedEx and its commitment to technology and data, also answering audience questions during a Q&A session.

He said FedEx’s commitment to technology stemmed from wanting to improve the efficiency of the shipping process, and the experience for customers.

“You couldn’t try to constantly improve the process if you didn’t have data about how the process worked,” Carter said.

“It all started with a notion that information is something we can connect with our cus-

tomers to share.”

He noted the importance of being a step ahead of the industry as a whole, as FedEx was when it built radio towers in the early 1980s across the country to gather data about packages each step of the way. Fred Smith, the founder of FedEx, believed that “the information about the package is just as important as the package itself,” Carter said.

Carter emphasized that FedEx continues to “seek the edge of technology.” That’s an objective the company partners with researchers to achieve. Those researchers include USF ISDS faculty Balaji Padmanabhan and Alan Hevner, who have used predictive data mining models to identify issues that customers care about most.

Carter also spoke about his own career path, crediting USF’s MBA program with giving him the knowledge to advance to a career as an executive. He said he wouldn’t have been able to achieve his current status simply with a background in information technology. The business acumen that he gained during his MBA studies was also critical.

“The most important thing that happened to me was to get a solid business perspective that let me have a seat at the executive table,” he said.

“It’s a really important part of me being able to do the job that I do today.” §

