



**Balaji
Padmanabhan**

Chair's Message

The ISDS department has had an exciting year. Our faculty continue to publish in premier journals and have been recognized with wonderful awards and grants. We welcomed our first batch of students in our completely online MS in MIS program

with a focus on analytics and business intelligence. We had one of our largest — and extremely talented — incoming groups of students to our on-campus MS in MIS program. And, as many of you know, our previous department chair, Kaushal Chari, is now associate dean of the College of Business.

But wait, there's more!

- We added great partners such as Bank of America, PSCU, Colliers, and KForce to the growing list of firms who have participated in the ISDS Practice Center.
- We have seen one of the highest starting salaries for one of our students in our outgoing MS cohort.
- Our undergraduate MIS program was ranked No. 25 in the nation in one of the most prestigious rankings.
- The quality of students we are seeing in our classes continues to impress many of us. Our doctoral students are doing outstanding research and have presented in prestigious research venues worldwide.
- Our department has played a critical role in important aspects of the new and exciting cybersecurity initiative at USF, one that can add even more recognition and visibility to the College of Business.
- There are new graduate courses in the healthcare information systems area, thanks to an exciting new faculty colleague who is joining us from Northwestern University's doctoral program.

We are extremely proud of these achievements, particularly given that these have happened in what con-

tinues to be a tough fiscal environment for us. But this has really shown to us what our greatest asset is. Our students, faculty, and staff have been the ones driving these achievements for us, and words cannot thank them enough for their efforts in the last year.

We are also seeing tremendous support for our initiatives from our dean, Moez Limayem, and from our business community in the Tampa Bay area — more positives we will be counting on for the next year.

The newsletter continues to be a peek into some of the exciting things that are going on in our department. I welcome all of you to read and reach out to me personally at bp@usf.edu with your ideas and thoughts. We need all the help we can get to continue to build special things together that can shape our future.

Finally, I would like to express my deepest appreciation for all that our outgoing chair, Kaushal Chari, has done for the ISDS Department over the previous seven years. His accomplishments are too numerous to even try to list. I have personally heard from many MIS students who have told me how the opportunities Kaushal has made available for them have transformed their lives. His addition to the College of Business dean's suite will take the energy there a notch higher — not an easy feat at all by any stretch for those who have been keeping track. 😊

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News: BusinessWeek Ranking

the
College of Business
ranked
#25 nationally
for the
information systems
specialty

According to Bloomberg Businessweek's 2013 rankings of undergraduate business schools, USF's College of Business is ranked No. 25 in the Nation for the information systems specialty, joining the ranks of universities such as Purdue (No. 24) and the University of Virginia (No. 26).

"It is an honor to be one of the top 25 schools in the country for information systems," said Kaushal Chari, former chair of the ISDS department who recently took a new position as associate dean of research and professional programs. "At USF, we truly believe that by demanding that our graduates understand 'big data' and know how to extract valuable information from it, they will find better jobs and we will establish a reputation as the place where top employers come to find talent."

Although the ranking confirms USF's excellence in information systems, the College of Business is continuing to strengthen its programs in this area. Part of the College of Business' new five-year strategic plan was a quest to establish a distinctive identity — one that focuses on data analytics and creativity across every department. In the ISDS department data analytics and business intelligence have been a big part of the curriculum for several years now. The department faculty continue to innovate in this area through their research in this area and teaching, which includes enhancing existing offerings and developing new ones.

In addition to world-class faculty who bring practical applications into the classroom, the ISDS department has an industry-sponsored Practice Center project series that allows students to work with companies on real-world projects. These students have opportunities to find creative solutions to business problems while they are still in school, as well as network with companies who might be looking to hire when they graduate. Despite the practice center being a relatively new initiative, more than ten companies have sponsored such projects to date. Several of these have resulted in students getting placed at these firms, contributing to both student success as well as active business engagement.

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**Manish
Agrawal**

Faculty Focus Manish Agrawal

Manish Agrawal has been editing this newsletter since its inception. Here is a brief profile.

Manish Agrawal has been with USF since 2001, joining the ISDS Department after completing his PhD at the

University of Buffalo. In the early years of his career, his research interests focused on IT outsourcing. More recently, his research has focused on software engineering and information processing during extreme events.

Agrawal has taught some of the technical courses in the department, including the core undergraduate course in business data communications. He also developed the information security and risk management course, now offered as an elective at both the graduate and undergraduate levels. Seeing a lack of interesting and relevant textbooks on both these topics, he developed his course materials for these two classes into textbooks, both published by Wiley (the information security textbook has a publication date of February 2014). To ensure that the material in the information security class was industrially relevant, Agrawal collaborated with senior members of the USF IT department, including the director for information security, to develop the material.

For the last few years Agrawal has taught a graduate class on web applications development. His classes offer a mix of theory and hands-on practice to prepare students to join the IT workforce.

Another recent teaching activity Agrawal has greatly enjoyed is collaborating with ISDS Professor Grandon Gill on the development of teaching cases for the capstone undergraduate class.

Agrawal's recent research on extreme events has received federal funding from the National Science Foundation. One of these projects examined how first responders to the Mumbai blasts in 2008 processed information in the immediate aftermath of the incident. The research involved interviews with select first responders to the incident. Listening to the descriptions was a moving experience for him. Currently, along with his collaborators, he is looking at social media activity following the Boston Bombings. §

Student Focus: Leila Elorfi Programmer Analyst, JP Morgan Chase

Leila Elorfi, a recent graduate describes how she took advantage of the opportunities offered by the department to position herself for success upon — and even before — graduation.

The impact of the global economy resonated with Leila Elorfi after her first study abroad experience in Wales at the University of Glamorgan during the summer before her junior year at USF. Many of the experiences that Elorfi was afforded in Wales, which included trips to local businesses and attractions, gave her real-life connections to classroom course work and lectures. These experiences broadened her views of the world, established new friendships and opened her eyes to the opportunities that lay ahead.

Immediately after returning from Wales, Elorfi began researching the MIS program to India the following summer.

“My trip to Wales was such a positive experience that I knew traveling to India to study software engineering would give me a whole new perspective on the IT industry,” she says.

While in India, Elorfi spent three weeks at Infosys in Mysore where she was able to work directly with software engineering professionals. The industry highlight of her trip was a site visit to Microsoft Corp., where the group was given a behind-the-scenes tour of the facility and a presentation of Windows 8 before it was released to the

public. At the end of the trip, the group visited the Taj Mahal, one of the new Seven Wonders of the World.

“My trip to India exceeded every expectation and provided me with an experience of a lifetime,” Elorfi says. “I would encourage any student who has an interest in studying abroad to take full advantage of the opportunities that USF has to offer.”

Shortly after returning from India, Elorfi accepted an internship with JPMorgan Chase in Tampa. The internship was facilitated through the ISDS Practice Center where she partnered with Geoff Brophy, a fellow MIS senior. At JPMorgan Chase, Elorfi worked with SharePoint and ProjectServer 2010, both of which are project management tools. During her internship, Elorfi helped bring Project Server from a ‘blank slate’ to a functioning project management resource.

“JPMorgan Chase provided me with numerous learning opportunities,” Elorfi says. “I gained experience in SharePoint, ProjectServer, JavaScript and project management protocols. I also learned about the corporate culture of a forward thinking company.”

During Elorfi’s last semester at USF, she accepted an internship with 3M Corporation in Odessa, Fla., where her responsibilities included analyzing trends in data.

“I am extremely thankful for the resources provided by the ISDS Practice Center,” she says. “This includes my trip to India, two invaluable internships and networking opportunities with professionals in my field.” She accepted a job offer from JPMorgan Chase six months prior to graduation, and begins work as a technical analyst following her graduation. §

Outgoing Chair’s Message

As I transition to a new role in the college, I want to thank all of you for being very supportive of the department during my tenure as chair. With your support, we overcame many challenges while working for the good of our students. The recent ranking of the MIS undergraduate program (No. 25 in the nation by *Bloomberg Businessweek*) affirms that we are on the right path.

We did reach new heights, but I believe the best days for the department are yet to come. I am confident that under the leadership of Balaji Padmanabhan, the new chair of the department, and with your continued support, we will scale greater heights.

Cordially, Kaushal Chari

Welcome New Faculty!

He Zhang joined the ISDS Department this fall teaching a special topics course on healthcare information systems.

Zhang’s research interests include healthcare information management, Big Data, and production and inventory management. Zhang has presented at numerous conferences, including meetings of INFORMS (Institute for Operations Research and the Management Sciences) and the 12th International Conference on Stochastic Programming.

Zhang is a PhD candidate from Northwestern University. He has an MS degree in management science and engineering from Stanford University, as well as additional engineering degrees from Tsinghua University. §

ISDS Ranking, *continued from page 2*

Being part of the ISDS program pays off outside the classroom, as well. According to an exit survey of spring 2012 graduates, the average salary of MIS graduates with bachelor's degrees was \$51,881 for those taking new positions.

Graduates received job offers from companies such as JPMorgan Chase, Citigroup, DTCC, Microsoft, Nielsen, AT&T, Ernst & Young, and Raymond James.

The ISDS Department's new chair, Balaji Padmanabhan, said he is excited to take the leadership position at such

an exciting time for the department and the college .

"We are starting to see decades of continued hard work and innovation in our department paying off in terms of research excellence, program quality, strong business interest in our research and teaching, and most important, student success," he said.

"Much of this is due to the amazing faculty we have who have collectively made this possible through their intellectual contributions, thought leadership, excellence in the classroom, and a willingness to go the extra mile for our wonderful students. I look forward to many more exciting things to come." §

"Big Data" Panel Discussion

About 250 alumni and guests gathered at the College of Business on Oct. 25 to learn more about data-driven decisions -- from the lessons Boston Market's Chief Brand Officer took back from her experience on the "Undercover Boss" TV show, to a panel discussion with top-level executives on how they use data in their jobs.

Led by ISDS Chair Balaji Padmanabhan, the panel included FedEx Co-Chief Executive and Chief Information Officer Rob Carter, Avon Chief Financial Officer Kimberly Ross, and Florida Panthers Director of Business Operations Andre Therrien. They discussed the expanding uses for data in the corporate world and the importance of shifting to a corporate culture with an analytics mindset.

Therrien said in his work with the hockey club, the road to an analytics mindset has not been a straight line. Recently, the team tried to recreate the exclusive club the Miami Heat have at their games, with stratospheric ticket prices for an all-inclusive experience. Therrien looked at the numbers and told his managers that such a club would

not make the money they wanted with what people were actually willing to pay for tickets. The club renovation went ahead despite his warnings; the numbers ended up being what he had projected.

"I think changing to the analytics culture improves everybody," Therrien said.

The panelists also emphasized that, counterintuitively, the human element remains necessary when making data-based decisions.

"We have to understand that human intuition is really important," Carter said.

Ross stated companies often think about analytics "or" intuition, which is the wrong mindset. It's not an 'or,' it's an 'and,' she said.

Carter said companies who worry about the implications of technology rather than embracing its potential will get left behind in the new marketplace.

"We need to embrace the fact that the digital world can tell us a lot about what's going on around us," he said.

INFOSYS program

The department's summer IT program at Infosys continues to provide a unique academic immersion opportunity to participating students. This summer, 17 students traveled to Mysore, India, to take a class on software engineering, taught by Infosys faculty. They also had the opportunity to meet N. R. Narayana Murthy, founder and CEO of the global software giant with more than 100,000 employees.



USF students with Dr. N. R. Narayana Murthy at Infosys Headquarters, Bangalore, India

Alumni Focus: Dan Bisaillon



Dan Bisaillon, BA Management 1983, EMBA 2006 is the chief operating officer of America II Electronics, a leading semi-conductor distributor. Here is a brief profile.

Tell us about your company.

America II Electronics is one of the largest independent stocking distributors of semiconductors in the world. We are headquartered in St. Petersburg, Fla and have offices in the United Kingdom, Germany, Japan, Singapore, China, and Mexico. We pride ourselves in our supply chain expertise by providing our customers superior service. We employ more than 600 people globally, stocking over 165,000 parts representing some 1,997 manufactures. Our global fulfillment center is in St. Petersburg, Florida and comprises more than 200,000 square feet of warehouse space.

What are your responsibilities at work?

As chief operating officer, I manage all departments and set the strategic direction for the company. This requires a key understanding of the roles of each department and an understanding of the supply chain we serve. On a daily basis I manage projects that achieve two goals: maximize profits and contain costs.

Tell us about your career path.

I started out in the IT department of a government subcontractor working on job costing systems. This put me in contact with the user departments with whom which I worked closely. My roles became more business process-oriented and less technical development-related. Over the years, I began to run various business units, such as operations, sales/purchasing, etc. This led me to my current role as COO. An IT background can lead you to many directions - from purely technical roles to business leadership ones. The path depends on the person's skills, passion, and opportunities. I was fortunate

enough to be given opportunities to expand into new roles of responsibilities outside the realm of information technology.

Any memorable USF moments?

Of course, the most exciting thing that happened to me at USF was meeting my wife.

Beyond that, the most useful classroom experience I had was a special team project we did for a government agency. Our objective was to find a solution to the manual task of tracking transportation needs for the handicapped in the county. We visited Broward County to observe that group's operations and created a design framework for Hillsborough County. We gained experience in system design in a "real-world" setting.

What do you look for in new hires?

The main thing I look for is attitude. Many candidates have the background, skill, and experience but the differentiator is attitude. We look for employees who are passionate about their work, take pride in their work, take ownership of their work, and are willing to accept advice and give advice.

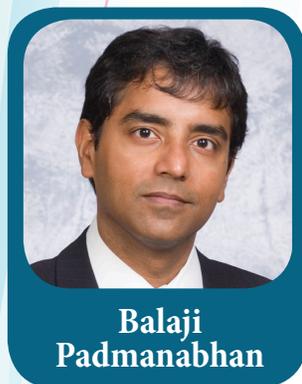
What trends do you see on the horizon?

The significant trend that I see has less to do with the technology and more about the end user. End users today are much more sophisticated and are taking on some of the traditional roles that IT used to perform. Users now demand analytical tools that allow them to become self-sufficient in doing their own what-if analyses, data mining, and workflow process controls. These requirements of the end users are driving the demand for more sophisticated, yet intuitive, end-user tools.

Any advice to current students?

An IT career can lead you in many directions. It is more than just writing code and managing systems. It's about solving business problems and interacting with other business leaders. Your success depends on your ability to live in "both worlds." You should understand the business side as well as understand the technology side. Look for the path that provides you with the greatest satisfaction. §

Research Feature



**Balaji
Padmanabhan**

Balaji Padmanabhan recently published a study on leveraging probabilistic information about customers. The journal, Information Systems Research, is the flagship publication on Information Systems by the INFORMS society. A summary is below¹.

From Business

Intelligence to Competitive Intelligence: Inferring Competitive Measures Using Augmented Site-Centric Data

In the early part of the 20th century Arthur C. Nielsen introduced the concept of “market share” as a measure of intelligence for businesses. Before ACNielsen Inc. began its data collection process it was virtually impossible for firms to obtain timely, complete, and accurate market intelligence about competing brands. Today it is well recognized that knowledge of the overall competitive landscape is important for any business, and in response to this, there are several firms that specialize in the task of collecting and disseminating such information in various industries. Recognizing the significance of competitive measures, a trend in the Business Intelligence (BI) field is the increasing importance given to competitive intelligence (CI), i.e., the information that a firm knows about its external competitive environment.

While current BI dashboards are versatile and can pull data from different sources, most of the information in these dashboards is typically about the internal environment of the firm. Google Trends recently started providing some competitive intelligence documenting the volume of search queries across different competitors, one example of the kind of information companies seek today.

Third party data providers do offer some of this functionality, often at a price and sometimes not in real time. In this paper we ask if, under some circumstances, firms might be able to augment their own internal data

(which has been referred to as site-centric data in the ecommerce context) with limited amounts of external data to achieve similar goals. Our focus is mainly on competitive measures that capture customer visits and purchasing behavior across competitors in ecommerce.

Our model builds on the rich repeat-buying literature in marketing that developed and studied the classic Dirichlet probability model and its various extensions. A defining feature of the Dirichlet model is that for each customer it is necessary to know the number of transactions conducted with each of the competing firms in the market. We refer to this as the complete information requirement, which in reality is hard to fulfill because a firm needs to know the purchases their customers make across all competing firms. More often than not, a firm only has data on its own customers (i.e. site-centric data), and therefore is unable to implement such a model.

Is there a middle ground where firms can obtain some data about their competitors, but not at the individual customer level? Sharing aggregate data rather than individual transactions can be a practical approach for retailers and in some cases may be the only way to obtain competitive intelligence. At the same time, however, for many firms it is not enough to rely on aggregate summaries alone – they would like to make the best use of their internal data in conjunction with these external aggregate summaries in order to obtain the most complete picture of the competitive environment.

In this paper we show that in the ecommerce context firms may be able to estimate interesting competitive intelligence measures with probability models in conjunction with data analytics. Based on data provided by comScore Networks we show empirically that our method performs well in inferring key diagnostic competitive measures – such as the market share and the share of wallet – for various online retailers and discuss the implications of our results. §

¹ “From Business Intelligence to Competitive Intelligence: Inferring Competitive Measures Using Augmented Site-Centric Data,” Zhiqiang Zheng, Peter Fader and Balaji Padmanabhan, Information Systems Research, September 2012 23:698-720