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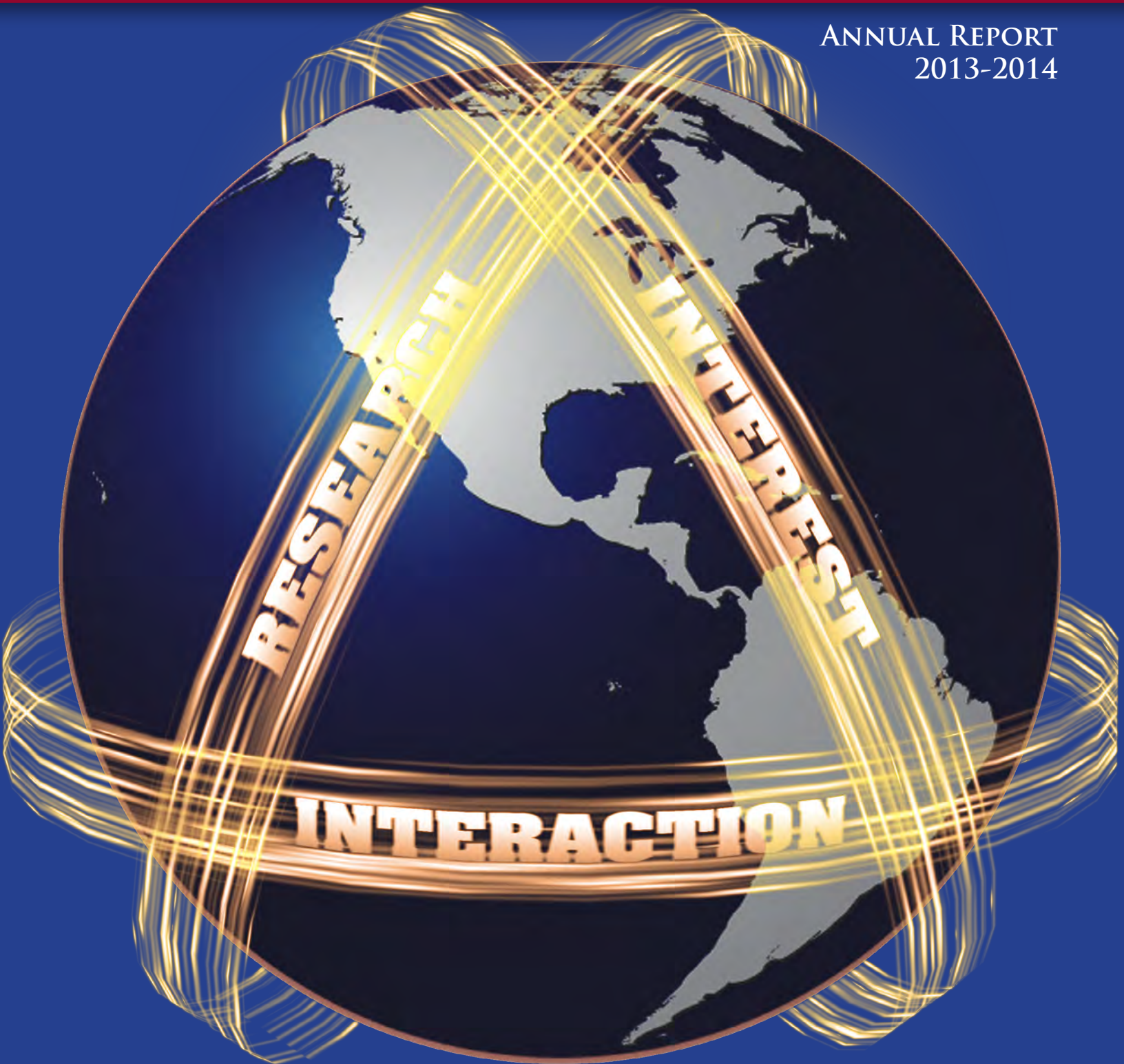
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WALTON OUTREACH

INFORMATION TECHNOLOGY RESEARCH INSTITUTE

ANNUAL REPORT
2013-2014



UNIVERSITY OF
ARKANSAS
SAM M. WALTON
COLLEGE OF BUSINESS

The Information Technology Research Institute (ITRI) diligently strives to increase the value proposition in our relationship with board members. We understand that success relies upon the support and interaction with these organizations. To achieve this we are providing our board members with additional opportunities to pursue their interests through committee leadership and service as we address our tripartite mission of conducting multidisciplinary IT research, promoting student interest in the study of IT, and facilitating interaction with the business community. The increased collaboration generated by the committees will take the ITRI to the next level.



WALTON OUTREACH

The annual report of the Information Technology Research Institute at the University of Arkansas

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WALTON OUTREACH

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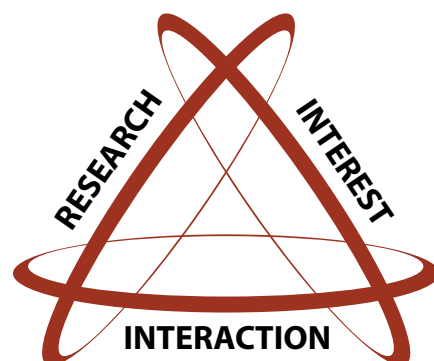
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MISSION

The Information Technology Research Institute (ITRI) is an interdisciplinary unit for research within the Sam M. Walton College of Business. The Institute's mission is to advance the state of research and practice in the development and use of information technology for enhancing the performance of individuals and organizations; to provide a forum for multi-disciplinary work on issues related to information technology; to promote student interest in the study of information technology; and to facilitate the exchange of information between the academic and business communities.

As always, we seek to involve more companies in ITRI-sponsored research. An organization can benefit by identifying areas where a research project can assist by providing relevant information or identifying possible solutions to an existing problem. Faculty members are encouraged to present their research during boarding meetings, conferences, and established venues. Identifying these additional opportunities for collaboration on research will be the main thrust of the research committee.

Since 2007, board member companies have advocated the expansion of our efforts in promoting student interest in the study of Information Systems. We continue to have success with events that target this interest such as: Executives in the Classroom program; the IT Executive Forum; and the Technology Awareness Program (TAP). As you read through this report please note the newly created Girls in IT event. Due to the tremendous success of this event we plan to host it annually.

The ITRI also conducted our 10th Women in Information Technology Conference. This represents a significant milestone for the institute demonstrating our continued efforts to promote and support women in the field of IT where women and minorities are vastly underrepresented. We also hosted our first webinar focused on the growing topic of Big Data. These programs provide a mechanism for the exchange of information between the academic and business communities while developing additional resources for our partnering organizations.

We are committed to increasing our presence and influence in the arena of technology as evidenced by the activities in this report. We welcome and encourage your suggestions regarding the direction of the institute. Please accept our deepest appreciation for your continued support as we look forward to another successful year!

Sincerely,

Eric T. Bradford
Managing Director
Information Technology Research Institute

RESEARCH

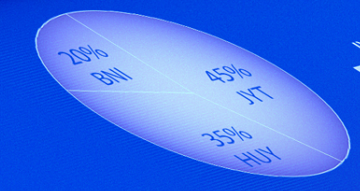
The Information Technology Research Institute encourages the production and dissemination of academic research via its working paper series, which also provides industry practitioners access to leading academic findings. Additionally, the ITRI supports many research projects and regularly engages member organizations in projects.



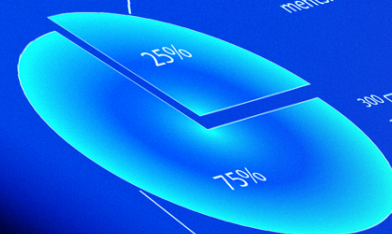
Sales of main products in 2013



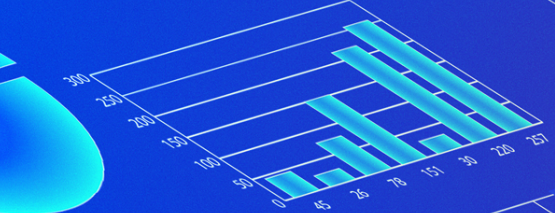
Distribution marketing participation in the securities market



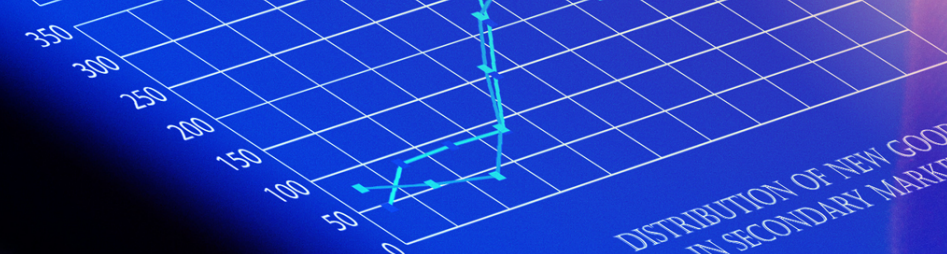
Share of market activity



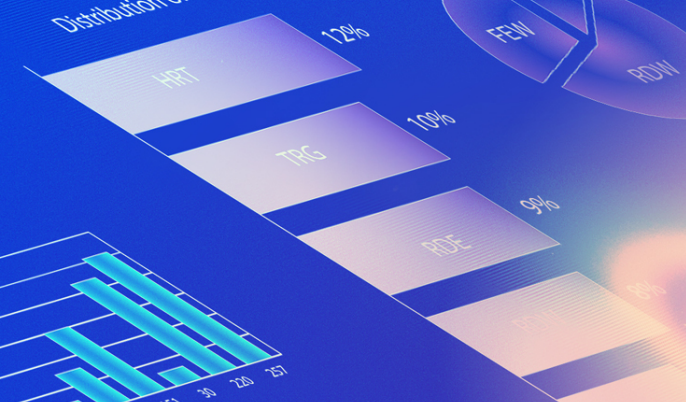
Changes in the activity of the active and passive market is uncertain, established positive trends in various market segments.



Passive market share



Distribution of the securities market key players



DISTRIBUTION OF NEW GOODS IN SECONDARY MARKETS



COMMON CEREALS AS A PERCENTAGE



Distribution of market share among the major industry players

Player	1	2	3	4	5	6	7	8	9	10
Market Share	15	14	14	15	24	14	15	14	15	14

We added five papers to the working paper series, bringing the total to 188 papers in the library, and responded to more than 750 requests for papers from the working paper series. Those requests came from IT professional, faculty members and students from around the world.

You can read more about these topics and other papers on our website:
<http://itri.uark.edu/91.asp?code=completed>

Idea Generation in Technology-Supported Teams: A Multilevel Perspective

REFERENCE #: ITRI-WP184-0713

AUTHORS

- Sankara-Subramanian Srinivasan, University of Arkansas
- Lionel P. Robert, University of Michigan
- Likoebe M. Maruping, University of Louisville

ABSTRACT: In this research, we draw on multilevel theory to understand the interplay between team characteristics—team size and team dispersion—and individual goal striving in influencing individual idea generation performance. We conducted a laboratory study involving 185 individuals nested in 34 brainstorming teams and found that individual goal striving is a stronger predictor of individual idea generation performance in dispersed team contexts compared to co-located team contexts and in larger teams than in smaller teams. The implications of the findings for theory and practice are discussed.

Effect of Social Media on Consumer's Brand Loyalty

REFERENCE #: ITRI-WP185-0813

AUTHORS

- Vishal S. Shah, University of Arkansas
- Moez Limayem, University of South Florida

ABSTRACT: Social media is now seen as a viable option for marketing and brand building for forward thinking organizations. However, real effectiveness of employing a social media campaign remains hard to judge, and current success measurements and usability methods come from web pages rather than social channels. In this research we argue for the need of new perspective for evaluation of social media environments. The new framework is rooted in affordance theory. Using the model, we evaluate and contrast a social media environment and an interactive web page of an organization. Results indicated that the organization's social media page plays a better role in engaging user as well as building brand loyalty intentions compared to

interactive web page of the same organization.

Impact of Social Media on Brand Relationship Quality

REFERENCE #: ITRI-WP186-0214

AUTHORS

- Vishal S. Shah, University of Arkansas

ABSTRACT: Social media is a viable option for marketing and brand building for forward thinking organizations emphasizing relationship marketing. Recent work has shown that affective variables such as social presence and telepresence are important in social media context to create para-social environment, which appeals to the hedonic nature of its users. Roles played by these variables may change as the type of product changes. In order to examine this, we draw from information economics and previous social presence and telepresence research. Impact of social presence and telepresence on brand relationship quality using three different products (credence, experience and search) is tested using a model. Social presence emerged as the significant determinant of online trust in the model. We also find that telepresence is significant predictor of brand relationship quality across three types of product. Impact of social presence on brand relationship quality changes and is contingent on the product.

A Study of the Impact of Facebook Usage on Students' Social Capital and Academic Performance

REFERENCE #: ITRI-WP187-0214

AUTHORS

- Vishal Shah, University of Arkansas
- Sankara Subramanian, University of Arkansas
- Sana Rouis, Lulea University
- Moez Limayem, University of South Florida

ABSTRACT: Prior research has focused on the benefits of social media usage such as Facebook in terms of the social capital gains they bring. Other research has studied the adverse impact of such usage on academic performance. In this study we try to understand both the

beneficial and adverse aspects of Facebook usage in the case of U.S. undergraduate students. Basing on social capital theory and system usage in hedonic context, we tested the dual effect of Facebook usage on social capital and academic performance of the students. Preliminary results show that a rich use of Facebook enhances the academic performance and extensive presence on Facebook develops the student's social capital in terms of number and quality of connections, relationships and interactions. Implications of the early research findings and directions for future research are drawn.

Diffusion of Information System Standard: Exploring the Role of IT Opportunism and IT Modularity

REFERENCE #: ITRI-WP188-0614

AUTHORS

- Rishi Jena, University of Arkansas
- Vishal Satyapal Shah, University of Arkansas

ABSTRACT: Adoption and diffusion of information standards is a key issue for inter-organizational relationships (IOR) (Chen 2003), and has been found to be critical to firm performance (Barringer and Harrison 2000). Prior literature suggests that inter-organization systems (IOS) play a key role in a firm's effort to build relationship with other firms (Barua et al. 2004, Rai et al. 2006). According to IBM (2001), about 90% of IT budget costs are related to integration of processes, software, and staffing while launching and maintaining a web site consumes only 10% costs of the IT budget. Common standards and integrated applications enable flows of information and coordination of activities across functional units, geographic regions, and value network partners (Broadbent et al. 1999) while fragmented IT infrastructures can constrain information flows and activity coordination (Barua et al. 2004; Sambamurthy et al. 2003; Rai et al. 2006). In the United States, about 60% of the firms across different industries conduct business-to-business transactions manually or through disconnected IT systems (Wailgum 2006). It has been suggested IT-enabled inter-organizational business process standards (IBPS) (Bala and Venkatesh 2007) can improve relationships between organizations and business performance but its adoption remains low. Different IBPS based systems hinges on the various information standards. This study intends to provide insight as to what explains the variation of adoption of the information standards.



#1 PUBLICATIONS



Faculty in the department of information systems in the Sam M. Walton College of Business had the most publications in two premier research journals, MIS Quarterly and Information Systems Research, in 2013.

The department not only ranked number one in 2013, but also ranked in the top five, based on an adjusted count (publication frequency adjusted for number of authors) in the two journals over the past three years and past five years (2011-2013, 2009-2013). The U of A ranked higher than other top business schools, including the University of Texas at Austin and New York University.

Viswanath Venkatesh, Distinguished Professor and holder of the George & Boyce Billingsley Endowed Chair in Information Systems, ranked first in publications in the two journals for all three time periods. Venkatesh had papers in all four issues of MIS Quarterly in 2013, a first at the journal.

Two other researchers who made all three lists are Walton College alumni: Hillol Bala (2008) and Tracy Sykes (2009). Sykes is now an assistant professor in the department.

REPUTATION SURVEY

The ITRI conducted its 14th annual company reputation survey of students in order to continue strengthening the linkage between industry and students. Freshmen through graduate school students in Information Systems and Computer Science and Computer Engineering from the Walton College and the College of Engineering responded to the anonymous on-line survey.

Interested member companies are provided with insightful information about the knowledge IT students have of their organization. A total of 131 responses were received more than 662 students (approximately a 19.78% response rate).

By conducting this survey, we hope to enhance the understanding of companies that hire technology students and ultimately create more job opportunities in the future. For participating in the survey, a random drawing was held to select two students to win an iPod nano.



RESEARCH DINNER

On Tuesday, May 28th, the ITRI hosted its first Research Dinner to provide an opportunity for Information Systems professors to present their research to members of the ITRI Advisory Board. It is part of our mission to share information between the academic and business committee. As a research institute, it is important for board members to know what topics our faculty currently research. It is just as important for the Information Systems professor to know what topics are important to our board members companies. This event provide the opportunity to exchange that knowledge.

Bring your own device by Zach Steelman's dissertation, to be proposed by Dr. Rajiv Sabherwal

Zach Steelman's dissertation, to be proposed by Dr. Rajiv Sabherwal

Recruitment and Retention of Women and Minorities by Dr. Tracy Sykes



Corporate Governance of IT Function by Dr. Pankaj Setia



ERP Modules by Dr. David Douglas



ERP Modules by Dr. Paul Cronan

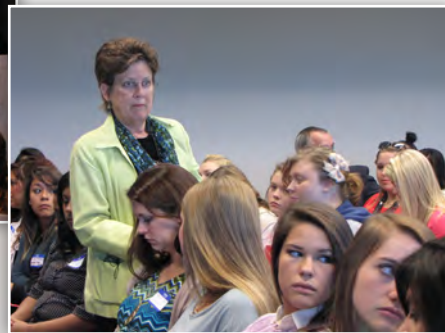


INTEREST

We are dedicated to promoting student interest in the study of information technology as well as increasing interest in new information technology topics among professionals.



The Information Technology Research Institute has always been involved in the promotion of women engaging more in the world of technology, and for the first time hosted an event for high school girls on October 8, 2013. The event included a panel of professional women and current IT undergraduate students to give these young women a better understanding of this growing field. A mini-mentoring session gave the girls a more personal setting to ask these experienced women more detailed questions. This event sought to create a new outreach initiative to increase the female population in the IT field and provide networking for all attendees. The Information Technology Research Institute hopes to make this an annual event for young women interested in the field of technology.





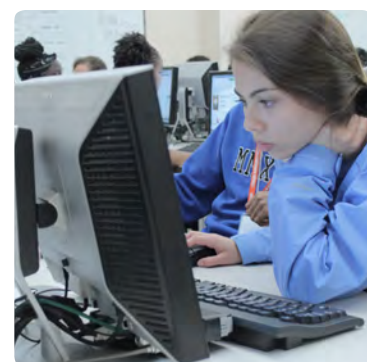
Tapping Into Technology

On June 22, 2014, the Sam M. Walton College of Business welcomed 35 high school students to



campus for the Technology Awareness Program (TAP) where they could learn more about careers in the field of Information Technology and the Walton College's

technology curriculum. In the fifteenth year of the weeklong program, TAP was established and coordinated by the ITRI in partnership with the Information Systems Department and the Office of Diversity and Inclusion. The program seeks to expose high school students in underrepresented groups (women and racial minorities) to the field of Information Technology and college life. ITRI board member companies fund the program. This year in addition to ITRI Board member support, AT&T also generously supported the program, helping us to host the largest ever class of attendees.



U. S. population. While 5% of the science and engineering workforce is African-American, they make up more than 13% of the U.S. population. This is just one program held annually to change these workforce ratios, and it fits nicely into the ITRI's mission to promote interest in the field of IT.

Historically, science and engineering fields mainly attract white males, who make up 51% of the industry's workforce. According to the National Science Foundation, only 28% of the science and engineering workforce are women, yet women make up 51% of the

TAP also serves to recruit students to the University of Arkansas and promote their interest in IT as a degree concentration and career path. The diverse mix of 35 students came to campus for the program from Arkansas,



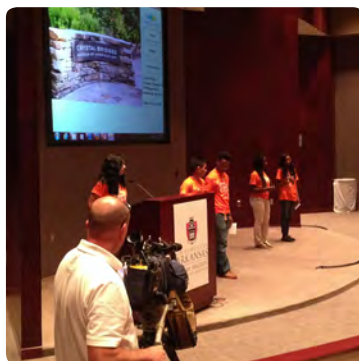
Oklahoma, Mississippi, and Texas. Twenty-nine hailed from Arkansas, two came from Texas and one each



attended from Indiana, Missouri, Oklahoma and Kansas. TAP is open to minorities and women who will attend 11th and 12th grade following the summer they attend the program. All students must have a minimum of a 3.0 GPA. Participants also must submit an application which includes three essay questions. The majority of TAP students this year were of African-American heritage. Four were Latino and one each was of Asian, Caucasian, and multiple ethnicities.



During the camp, students toured Walmart's Innovation Lab, listened to guest speakers discuss different technologies, and enjoyed social activities, all while living on campus.



They also attended classes taught by Walton Information Systems faculty and staff to learn more about the field of information technology. Working in groups, students learned to work as a team to accomplish a goal. This year ITRI Board member organizations submitted real life IT projects on mobile app development for the students for work on as a team to solve.



The week culminated with students presenting the results of their apps to sponsoring companies, University faculty and staff, and family members.



"It inspires us to become innovators and show that we are capable of making a difference," said one camper.

"It's mind blowing, but I can get used to this stuff," said another.

The program informs students regarding the career possibilities in information technology as well as life as a future University of Arkansas student.



BUSINESS CAREER FAIRS

In conjunction with the Walton College Career Development Center, the Center for Retailing Excellence, and the Supply Chain Management Research Center, the ITRI hosted two career fairs in the East Indoor Club at Razorback Stadium. The Indoor Club provides an effective and comfortable atmosphere for interaction between students and companies. The Fall Business Career Fair took place on Tuesday October 1, 2013. Approximately 1000 job seeking students attended as well as 111 companies; 33 companies specifically mentioned seeking Information Systems students while 65 other companies recruited for all majors including Information Systems. The Spring Business Career Fair moved to Wednesday, March 5th due to inclement weather and was combined with the STEM fair. The blended fair brought in more than 1370 students and 141 companies. Twenty of the companies specifically recruited for Information Systems Majors, Masters in Information Systems, and Enterprise Resource Planning experience.



EXECUTIVES IN THE CLASSROOM

The ITRI provides opportunities for our board member companies to promote their organization to students and for students to learn about the companies, their cultures, and job opportunities. The companies also bring real world experience to the classroom as it relates to specific IT topics. We had several representatives from our business partners speak to classes on a range of IT topics. This gives students a better understanding of the type of work IT professionals do on a day-to-day basis. The Executives in the Classroom program brought several industry professionals to speak to students. This facetime with students is very valuable to everyone involved; board members, faculty, and of course the students. This program hits the heart of the ITRI's mission of promoting student interest in the field of information technology and facilitating the exchange of information between the academic and business community.

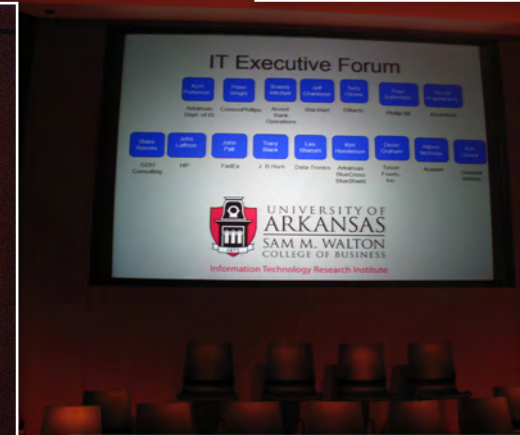


ISYS STUDENT RECEPTION WITH IT EXECUTIVES

Immediately following the IT Executive Forum that took place September 24, 2013, a reception with ITRI board members was held for current Information Systems students only. Twenty-five students were able to meet with each IT executive and ask questions not presented in the larger forum. The students and executives participated in something similar to speed dating to provide each student the chance to visit with each executive. The event was deemed a success by participants providing students an opportunity to visit with potential employers, and employers the opportunity to visit the potential co-workers.



The ITRI's annual IT Executive Forum took place on Tuesday September 24, 2013. Fourteen IT executives from member organizations participated in a question and answer dialogue with approximately 300 college and high school students. During this event students asked executives important questions about the field of Information Technology, types of jobs in the field, and the culture of particular organizations. This is a very unique opportunity for students to interact and ask questions of participating executives, and it is also important for executives to shine a clear light on the need for high quality diversity IT students, the excitement and opportunities in the field, and to promote their organizations.



INTERACTION

The ITRI seeks to bridge the gap between academia and IT professionals as well as the gap between individual IT organizations. When we share our knowledge, everyone benefits.



RECENT GRADUATE

Gabriel Cuillier, Walmart Stores, Inc.

Walmart

Save money. Live better.



Gabriel is a recent graduate of the Sam M. Walton College of Business with a B.S.B.A in Economics and Information Systems.

When asked what most interested him about Information Systems Gabriel said, “The potential of solving problems with systems and computer engineering is endless. It seems like every other day a new technology platform comes out so just being a part of an industry that gets to keep up and be involved with perfecting the instruments is enjoyable. Information Technology is the forefront of everything these days. Why not be a part of it?”

As the event that sparked his interest in an IT career he credits his experience as a mentor in the Technology Awareness Program. This program exposes underrepresented groups, minorities and women to the field of technology. “I was visiting the Walmart Innovations Lab in Bentonville and was exposed to a medley of technology that was being pitched to Walmart. Each unique pitch piqued my interest and introduced me to the creative world of Information Technology and Computer Engineering. That next day I changed my major.”

He also said, “The Technology Awareness Program introduced me to a world of technology that I didn’t know previously existed. It was a very enlightening experience that left me with tangible and intangible accomplishments that helped me prepare for college.”

He currently works for Walmart Stores, Inc. as an IT Rotational Analyst. Gabriel has aspirations of becoming a strategist where he can push the envelope of what technology can accomplish for business purposes in eCommerce and mobile applications. He credits his experience as a student for preparing him for what he would encounter in the workforce, and states that his learned knowledge of database management and SQL as being most beneficial.



10TH WOMEN IN INFORMATION TECHNOLOGY CONFERENCE



The 10th Women in Information Technology Conference was held on Thursday and Friday March 6-7. Attracting more than 180 female IT professionals from the four-state region. This conference focused on “Celebrating the 10th gathering, finding leadership for the future” and included a tour of the RFID Research Center facility and the National Center for Women & Information Technology’s Regional Aspirations in Computing Award dinner.

The conference featured two keynote speakers. Rebecca Wilson, Technical Account Manager, Microsoft Corporation gave the morning keynote and Fumbi Chima, VP of Global Technology Services and strategic Partnerships at Walmart Stores, Inc.

Being the 10th event of its kind, we thought it was important to bring back a few speakers from the past to help celebrate. This included two key individuals that helped develop the conference, Amy Reeves Robinson, Business Catalyst, Coach, and Growth Strategist of Springline Group and Brad Lawless, VP of Audience Development for Collective Bias. Amy Robinson was the main facilitator of the event, and Brad Lawless, who was the managing director of the ITRI at the time of the 1st conference, provide a welcome that reflected on reasons why the conference was developed, it’s importance, and need to grow in the future.



More than 185 attended the conference from the four-state region, and heard from a great line up of speakers:

- The Value of Social Media - Amy Callahan & Holly Pavika from Collective Bias
- Security Innovations – Kym Patterson, FISGlobal
- Business Analytics – Lee Ann Benson, Acxiom Corporation
- Innovation in Leadership – Theres Stiefer, Walmart Talent Development
- Watson and the Advent of Cognitive Computing – Jill Puleri, IBM Global Industry Leader
- The State of Women in IT & NCWIT Aspirations in Computing Award Ruth Farmer, National Center for Woman & Information Technology (NCWIT)

For the second year in a row, we included Flash Talks as a part of the program. The idea for this type of session came from the NCWIT Women in IT Summit. An NCWIT FlashTalk is a short, thought-provoking PowerPoint presentation, delivered in a fixed format. We allowed each presenter 5 minutes to present their IT topic.

- Holly Pavlika, Collective Bias
- Sarah Scott, Rockfish Interactive
- Christina Serrano, University of Arkansas
- Amy Farmer, University of Arkansas
- Rebecca Sims, University of Arkansas
- Brooks Hafen Robinson, Accenture

WOMEN IN IT

Ruthe Farmer, Director of Strategic Initiatives for the National Center for Women & Information Technology gave a state of women in IT address as well as a recap of the previous night's Aspirations in Computing Award ceremony held as part of the two day conference.

We also held a panel discussion moderated by Helena Gadison.

- Jill Puleri, IBM
- Ruthe Farmer,
- Rebecca Wilson
- Arron Comer

The conference continues to support women in the technology field in which they are greatly underrepresented.

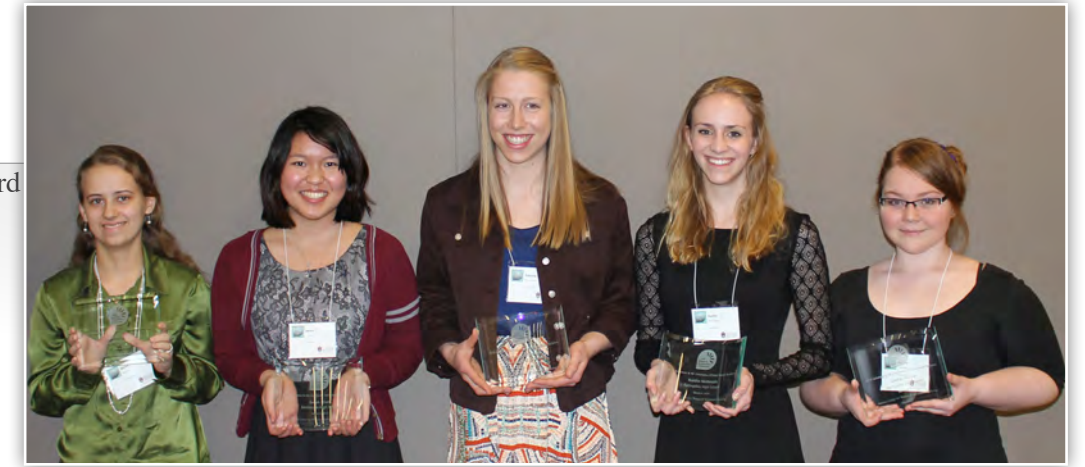


ASPIRATIONS IN COMPUTING

The ITRI conducted its fourth regional award for aspirations in computing with guidance from National Center for Women & Information Technology (NCWIT). The award seeks to recognize outstanding young women that are currently high school students for their achievements in the field of computing.

The regional award included Arkansas and Northeastern Oklahoma. By generating visibility of these young women, the award seeks to encourage continued interest in computing, increase awareness of the gender gap in computing and IT, and emphasize at a personal level the importance of participation in technical fields by women. Five awards were given out at a dinner as a component of the 10th Women in Information Technology Conference.

Representatives from partnering companies help with the event by presenting the awardees with their award and gifts provide buy the companies. This year winners were given a 32 GB Kindle Fire HD. Special thanks goes to FedEx Services, Tyson Foods, Inc., J. B. Hunt Transport Services; these companies donated a Kindle Fire for the awardees.



We must also bring attention to two individual who donated tables out of their personal funds. Thank you Sarah Scott of Rockfish Interactive and Stephen Witty of FedEx Services.

By the Numbers

Women and Information Technology

57 Percent of professional occupations in the 2013 U.S. workforce held by women	26 Percent of professional computing occupations in the 2013 U.S. workforce held by women	24 Percent of Chief Information Officer (CIO) positions at Fortune 100 companies held by women in 2012
1.2 million Number of computing-related job openings expected in the U.S. by 2022	56 Percent of Advanced Placement (AP) test-takers in 2013 who were female	46 Percent of AP Calculus test-takers in 2013 who were female
39 Percent of these jobs that could be filled by U.S. computing undergraduates by 2022	19 Percent of AP Computer Science test-takers in 2013 who were female	
63 Percent of 2013 Intel Science and Engineering Fair (ISEF) finalists in Biochemistry who were female	25 Percent of 2013 ISEF finalists in Mathematics who were female	14 Percent of 2013 ISEF finalists in Computer Science who were female
57 Percent of 2012 undergraduate degree recipients who were women	26 Percent of computing workforce who were women in 2013	
18 Percent of 2012 Computer and Information Sciences undergraduate degree recipients who were women	3 Percent of computing workforce who were African-American women in 2013	
12 Percent of 2012 Computer Science undergraduate degree recipients at major research universities who were women	5 Percent of computing workforce who were Asian women in 2013	
37 Percent of 1985 Computer Science undergraduate degree recipients who were women	2 Percent of computing workforce who were Hispanic women in 2013	
64 Percent decline in the number of first-year undergraduate women interested in majoring in Computer Science between 2000 and 2012		

Sources: U.S. Department of Labor, Bureau of Labor Statistics, 2013 (Occupational Category: 15-0000); Boardroom Insiders, 2012; Includes new and replacement jobs and assumes current undergraduate degree (CIP 11) production levels persist; College Board AP Program Summary Report, 2013 (Calculus AB & BC, Computer Science A); Intel ISEF finalist breakdown by gender, 2013 (unpublished); National Center for Education Statistics (NCES), 2012 (CIP 11); 2011-2012 CRA Taulbee survey (Computer Science); The American Freshman: Forty Year Trends, 1966-2006, The American Freshman: National Norms Fall 2012, Higher Education Research Institute (HERI).

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ITRI BOARD MEETINGS



The ITRI holds two board meetings each year to provide updates on programs and initiatives. The fall board meeting took place on Tuesday, September 24, 2013 and consisted of an ITRI activity update, committee updates, a message from Dean Jones, and a board discussion about creating value through business analytics. As a part of our initiative to increase the research component of the ITRI, Mary Dunaway, a Ph.D. student in the Information Systems department, presented the results of her research on Emotional Intelligence and thanked board members for their participation in that research. Dr. Susan Bristow presented the results of her research on the readiness of college student for the workforce.



The Spring board meeting took place on Tuesday, April 1, 2014. It included updates from the Computer Science/Computer Engineering department, the Information Systems department, an Enterprise Resources update, an update of the ITRI Top 10 IT Priorities list, and an ITRI activity update. Dr. Fred Davis also presented findings from his research. The meeting concluded with a handful of soon-to-graduate information systems students who visited with board members without the presence of university faculty and staff. This gave the students freedom to speak their minds to board members about their educational experiences.

We also formed five committees to increase board member participation, ensure we are meeting the needs of member companies, and to solidify the future of the ITRI. Committees will address membership and development, student interaction, research, training and events, and curriculum. We expect these committees to help guide the ITRI on its mission to facilitating the exchange of information between the academic and business communities.



WEBINAR ON BIG DATA

On Tuesday, April 29, 2014, the ITRI hosted its first webinar on Big Data. The event included a panel of three industry experts; Tamra Hart of Axiom Corporation, Dr. Lli Lu of Walmart Stores, Inc., and Dr. David Douglas from the Sam M. Walton College of Business. They came together to address the definition of Big Data, how Big Data adds value to companies, what problems have been solved by Big Data, and what is next for Big Data.

Several folks attended the event in person while others could view it online. Following the live event, the ITRI made a recording available for on-demand viewing. John Pall, managing director of IT at FedEx Services and ITRI board member representative facilitated the event with assistance with Dr. Rajiv Sabherwal. The webinar received more than 180 views.



TOP 10 PRIORITIES

ABOUT THE ITRI'S TOP 10...

During our spring board meeting, the ITRI Board of Advisors modifies and updates its list of Top 10 priorities. Rather than focusing on technologies that change rapidly, this list reflects those things currently on the minds of the leading IT executives of 16 major organizations (both public and private). The list represents more enduring priorities that are not as volatile as pure technologies, such as programming languages or operating systems. First produced in 2001, the list acts and acts as a barometer for activities in these organizations and serves as a signpost for the academic community for research and curriculum priorities. The ITRI creates the list after listening to IT executives discuss and rank priorities for their organizations. We combine that information together to form the Top 10 IT Priorities.

1 BUSINESS INTELLIGENCE AND ANALYTICS

For the second year in a row, Business Intelligence and Analytics tops our list. In previous years that topic was listed just as Business Intelligence. Since understanding collected data has become increasingly important, we added "Analytics" to this topic last year.

The topic of Business Intelligence may be the most popular topic in the IT field right now. This popularity isn't changing anytime soon as it continues to grow across the country.

2013 Rank: No. 1
2012 Rank: No. 3
2011 Rank: No. 6
2010 Rank: No. 7
2009 Rank: No. 9
2008 Rank: No. 6
2007 Rank: No. 4
2006 Rank: No. 5
2005 Rank: Not ranked

2 SECURITY AND PRIVACY

The importance of this topic is no secret as it jumps up four spots to claim the number two position.

We can safely say that security and privacy will always be a top priority facing IT executives. It has ranked every year since we began the list, and it will always be a critical component of concern, as companies must stay ahead of hackers, both internal and external. Information security breaches in major organizations and governmental agencies threaten the exposure of sensitive data and bring attention to an already publicized area. Almost all companies, regardless of the industry, are aware of the importance of, and need for, proper security for the protection of an individual's privacy. Board members also mentioned cloud computing in their discussion as it relates to standards in security and privacy.

2013 Rank: No. 6
2012 Rank: No. 4
2011 Rank: No. 7
2010 Rank: No. 6
2009 Rank: No. 7
2008 Rank: No. 5
2007 Rank: No. 2
2006 Rank: No. 1
2005 Rank: No. 1
2004 Rank: No. 2
2003 Rank: No. 2
2002 Rank: No. 4
2001 Rank: No. 6

3 SPEED OF BUSINESS/PROJECT MANAGEMENT

The Speed of Business and Project Management have been a hot topic since their emergence on the Top 10 list. The topics emerged on the list in 2006, and were combined in 2007. Until last year the topic had been ranked no lower than #3 since being combined.

2013 Rank: No. 5
2012 Rank: No. 2
2011 Rank: No. 3
2010 Rank: No. 3
2009 Rank: No. 2
2008 Rank: No. 2
2007 Rank: No. 3
2006 Rank: No. 6 (Speed of Business); No. 4 (Project Management)

4 RATIONALIZATION & MODERNIZATION OF APPLICATIONS

Rationalization & Modernization of Applications makes a nice jump to the #4 post this year after it dropped two spots each of the two previous years. It previously appeared as Streamlining Applications. The name change emphasizes a change in focus while streamlining applications. Application development projects need strong justification for the things being done while taking advantage of any new innovative way to accomplish the task.

2013 Rank: No. 8
2012 Rank: No. 6
2011 Rank: No. 2
2010 Rank: No. 4
2009 Rank: No. 3
2008 Rank: Not ranked

5 INCREASING QUANTITY AND DIVERSITY OF IT MAJORS WITH EMPLOYEE RETENTION AND DEVELOPMENT

Increasing the quantity and diversity of IT majors with Employee Retention and Development made the largest jump of any topic this year. It comes in at its highest position since 2008 when it ranked at #3 (under the name Increasing IT Majors). This jump reflects the topic's importance to IT executives as not just increasing IT majors, but also increasing the diversity of those IT majors.

Last year the words "Employee Retention and Development" were added to the title. This reflects the importance member companies place on the need to retain employees especially those of the younger generation.

2013 Rank: No. 10
2012 Rank: No. 9
2011 Rank: No. 10
2010 Rank: No. 10
2009 Rank: No. 8
2008 Rank: No. 3 (as increasing IT majors) and No.8 (as increasing diversity)
2007 Rank: No. 5
2006 Rank: No. 4 (as part of Information Technology Workforce Issues)

6 INNOVATION

Innovation jumped up to 6# on this year's list, which proves it is still an important topic to organizations and definitely belongs on the list. Companies have to do a better job of selecting projects with firm justification. In this environment how does one value 'innovation'? IT groups are often viewed as facilitators of innovation. Yet, with many demands on resources, IT organizations continue to prioritize projects based on their potential to provide maximum return on investment (ROI).

2012 Rank: No. 9
2011 Rank: No. 5
2010 Rank: No. 8
2009 Rank: No. 6
2008 Rank: No. 7
2007 Rank: No. 7
2006 Rank: No. 8 (as New Technology Investment Decisions)
2005 Rank: Not ranked

7 SOCIAL COLLABORATION

Ranked for the first time last year when it jumped on the scene at the #4 spot. With social media increasing its prominence outside of the workplace, it is no surprise that organizations are taking note. Social Collaboration refers to processes or tools that help people interact, network, and share information in order to complete a task or obtain a goal.

2013 Rank: No. 4
2012 Rank: Not Ranked

8 CORPORATE STRATEGIC ALIGNMENT

The topic of Corporate Strategic Alignment cannot be underestimated as it relates to the organizations future. Since its emergence in 2006, it has never been ranked below #5 and has been ranked #1 five times. No other item on list has been ranked as such. This truly shows that it is imperative to have IT at the table when an organization develops its strategic plans. However, its drop to #8 hopefully means that there is improvement on the fight for alignment.

2013 Rank: No. 2
2012 Rank: No. 1
2011 Rank: No. 1
2010 Rank: No. 1
2009 Rank: No. 5
2008 Rank: No. 1
2007 Rank: No. 1
2006 Rank: No. 2
2005 Rank: Not ranked

9 RATIONALIZATION & MODERNIZATION OF INFRASTRUCTURE

Rationalization & Modernization of Infrastructure comes in at the #9 spot. In 2010 the item was listed as Lowering the Cost of Infrastructure and was ranked #9 on the list. The name change echoes the significant emphasis on the priority of justification and modernizing while lowering the cost of infrastructure. It is important to make sure there is strong justification for actions taken and to be sure to take advantage of any new innovative ways to accomplish the tasks.

2013 Rank: No. 7
2012 Rank: No. 7
2011 Rank: No. 4
2010 Rank: No. 9
2009 Rank: No. 4
2008 Rank: Not ranked

10 GROWTH & ACQUISITIONS

After splashing onto last year's list at #3, Growth & Acquisitions barely hangs on to round out this year's list. With the economy improving, member companies have noticed more activity in the business expansion. Acquiring new companies and growing their business brings additional opportunities and challenges to obtaining company. Getting the newly acquired company on the same system can be a challenge, and the proper way to manage this has become a high priority.

2013 Rank: No. 3
2012 Rank: Not Ranked

NOTES

Those that have dropped out of the Top 10

- No items have dropped from last year's list.

Priorities that have been ranked all 12 years:

- Security and privacy
- IT workforce issues (various)
- Project management

TOP 10 IT TECHNOLOGIES

Historically the Top 10 list has not focused on technologies that change rapidly. It has focused on the things at the forefront of the minds of IT executives of major organizations. Board members were also asked to provide a list of technologies that board members feel will be important during the upcoming year.

- Big Data – Map Reducing Technologies
- Cloud Computing
- Integration Technologies
- Virtualization
- Mobile Technologies
- In-Memory Computing
- Security and Privacy –Technology to Support IT
- Social Media
- Unified Communications
- Web Technologies



Brittany Bright

- Instructor
- M.A., University of Arkansas-Fayetteville, Information Systems
 - B.S., University of Arkansas-Fort Smith, Information Technology

Susan Bristow

- Instructor
- M.B.A., University of Arkansas

Paul Cronan

- Professor
- M.D. Matthews Endowed Chair in Information Systems
 - D.B.A. Louisiana Tech University, IS/Management Computer/Professional Ethics, Performance Analysis and Effectiveness

Fred Davis

- Professor
- David D. Glass Chair in Information Systems
 - Ph.D., Massachusetts Institute of Technology, Management
 - User Acceptance of Information Technology

David Douglas

- Professor
- Ph.D., University of Arkansas, Computer Modeling Distance Education, Object-Oriented Technologies, E-Commerce

Hartmut Hoehle

- Assistant Professor
- Bachelor of Commerce, Victoria University of Wellington, E-Commerce
 - Bachelor of Commerce, Victoria University of Wellington, Information Systems
 - Ph.D., Victoria University of Wellington, Information Systems

John Launder

- Adjunct Instructor
- M.A., University of Missouri, Journalism
 - B.A., Westminster College, History

Beverly McDaniel *

- Instructor
- M.Ed., University of Arkansas

Jeffery Mullins *

- Executive in Residence
- M.I.S., University of Arkansas

Rajiv Sabherwal

- Professor
- Edwin & Karlee Bradberry Chair in Information Systems, Information Systems Department Chair
 - B.E., Regional Engineering College, India, Electronic Engineering
 - P.G.D.M., Indian Institute of Management, India, Business Administration
 - Ph.D., University of Pittsburgh, Business Administration

Christina Serrano

- Assistant Professor
- Ph.D., Management Information Systems, University of Georgia Health Informatics, IS & Organizational Change

Pankaj Setia

- Assistant Professor
- Ph.D., Michigan State University,

Tracy Ann Sykes

- Assistant Professor
- Ph.D., University of Arkansas (Information Systems) Social networks and technology implementations Technology implementations in developing countries Technology and Healthcare

Viswanath Venkatesh

- Professor
- George and Boyce Billingsley Endowed Chair in Information Systems
 - Ph.D., University of Minnesota, Business Management Electronic Commerce, Gender and Age Differences in Technology Adoption and Usage

ACHIEVEMENTS IN TEACHING, RESEARCH, AND PUBLIC SERVICE

Susan Bristow

- 2013 Certificate of Appreciation for Outstanding Teaching, The Teaching Academy and the Wally Cordes Teaching and Faculty Support Center.
- 2013 Faculty of the Year, The University of Arkansas Associated Student Government and Residents' Interhall Congress.
- 2013 University of Arkansas Outstanding Faculty Advisor, Provost Office and Academic Advising Council
- 2013 Silver Spoon Award - Enactus World Headquarters and Campbell's Let's Can Hunger Challenge, Campbell Soup Company and Enactus World Headquarters.
- 2013 Beta Gamma Sigma Favorite Professor Invitation, Beta Gamma Sigma.

Fred Davis

- Senior Editor for Information Systems Research
- Senior Editor, Journal of the Association for Information Systems, Special Issue on "Methods, Tools, and Measurement in NeuroIS Research"
- Guest Editor, Information Systems Frontiers, Special Issue on "The Role of Information Technology (IT) in the Delivery of Services"

David Douglas

- 2013 Big Data and Analytics Faculty Award from IBM, (August, 2013)

Rajiv Sabherwal

- Fellow of 2013-14 SEC Academic Leadership Development Program, Southeastern Conference (August 2013)

Viswanath Venkatesh

- Quoted in local and national newspapers, including Washington Post, for views on IT education
- Citation count in excess of 30,000 per Google Scholars
- Citation count is nearly 10,000 per Web of Science
- Recognition and research findings, reported in local and national newspapers
- Ranked #3 for all-time number of papers (total: 16) in MIS Quarterly, MIS Quarterly (December 2013)
- Visiting Professor, Hong Kong University of Science and Technology (2013)
- Visiting Professor, Monash University (Malaysia) (2013)
- Paper appeared in the Journal of Operations Management in the past year; has been nominated for the best paper award at the journal
- Senior Editor of MIS Quarterly

STUDENT INFORMATION

- 55 undergraduate students graduated with an ISYS major in 2013-2014. Of these, 35 students a full-time job. Twenty-seven (or 77%) were employed by graduation. — five percent of the graduating class.
- The average ISYS salary 2013 undergraduates was \$53,984. Employing companies included Hewlett Packard, General Motors, Walmart Stores, Inc., Tyson Foods, Inc., Cerner Corporation, and Phillip 66.
- For Spring 2013 four MIS graduates all reported securing a job by graduation, 100%. Average salary was \$54,000 and employing companies included Walmart, FedEx, and Mobley Technologies.
- Graduates of the Information Systems Department continue to report great achievements in their careers. Adam Norwood (Bachelors 2008, Masters 2010) currently serves as a Technical Specialist at IBM. Tim Servati (Bachelors 2011) is a software developer at General Motors. Kelsey Brown (Bachelors 2011) is a Project Specialist at Wal-Mart Stores, Inc. Chris Moon (Bachelors, 2011) is a Field Tech Engineer at Google.

The Information Systems Department ranked #1 worldwide for research publications in the top two Information Systems Research journals (MIS Quarterly and Information Systems Research) in 2013.

#1

* Indicates non-tenure track professors

INDUSTRY/BOARD MEMBER



Member since 2012



Member since 1999



Member since 1999



Member since 1999



Member since 2001



Member since 1999



Member since 1999



Member since 1999

Member since 2007



Member since 2012



Member since 2006



Member since 1999



Member since 2012



Member since 2004



Tyson Foods, Inc.

Member since 1999



Member since 1999

STAFF PROFILES



Eric Bradford
ITRI Managing Director

Eric Bradford earned a Bachelor of Science in Business Administration and a Masters of Information Systems from the Walton College. He was a defensive back on the Razorback football team from 1984 to 1988. He joined the Walton College from Tyson Foods, Inc., where he worked a business analyst in the information systems department of the fleet group. He taught introduction to computers and worked for the University of Arkansas athletics department while earned his master's degree. He also worked in Dallas, Texas, for Central and South West Service, Inc., the parent company of Southwestern Electric Power Company.



Carlan Pine
Program Specialist

Carlan Pine graduated from the University of Arkansas with a Bachelor of Arts degree in Communication. As program specialist, she serves as a business liaison with the board of advisors for the ITRI, coordinates the Institute's events and projects, and operates as the business manager for the ITRI and the RFID Research Center. She is pursuing her master's degree in workforce development.





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