

INFORMATION SYSTEMS EDUCATION JOURNAL

In this issue:

- 4. Coin Counter: Gamification for Classroom Management**
John Carlson, Baylor University
Ranida Harris, Indiana University Southeast
Ken Harris, Indiana University Southeast
- 15. Navigating the Minefield of Self-Publishing E-Textbooks**
Leah Schultz, Tarleton State University
- 22. Emergence of Data Analytics in the Information Systems Curriculum**
Musa J. Jafar, Manhattan College
Jeffry Babb, West Texas A&M University
Amjda Abdullat, West Texas A&M University
- 37. Increasing Student / Corporate Engagement**
Thomas N. Janicki, University of North Carolina Wilmington
Jeffrey W. Cummings, University of North Carolina Wilmington
- 45. Student Veterans' Shared Experience Using Social Media in Higher Education: A Pilot Study with a Hybrid Phenomenological Data Analysis Method**
Kenneth Marsilio, Robert Morris University
- 60. Course Design and Technology For Synchronous Interaction in an Online Course**
Jennifer Kreie, New Mexico State University
Sandra Johnson, New Mexico State University
Michelle Lebsock, New Mexico State University
- 68. Empowering Students to Actively Learn Systems Analysis and Design: The Success of an Entrepreneurial-Inspired Project in a Hybrid Learning**
Wang-chan Wong, California State University, Dominguez Hills

The **Information Systems Education Journal** (ISEDJ) is a double-blind peer-reviewed academic journal published by **EDSIG**, the Education Special Interest Group of AITP, the Association of Information Technology Professionals (Chicago, Illinois). Publishing frequency is six times per year. The first year of publication was 2003.

ISEDJ is published online (<http://isedj.org>). Our sister publication, the Proceedings of EDSIGCon (<http://www.edsigcon.org>) features all papers, panels, workshops, and presentations from the conference.

The journal acceptance review process involves a minimum of three double-blind peer reviews, where both the reviewer is not aware of the identities of the authors and the authors are not aware of the identities of the reviewers. The initial reviews happen before the conference. At that point papers are divided into award papers (top 15%), other journal papers (top 30%), unsettled papers, and non-journal papers. The unsettled papers are subjected to a second round of blind peer review to establish whether they will be accepted to the journal or not. Those papers that are deemed of sufficient quality are accepted for publication in the ISEDJ journal. Currently the target acceptance rate for the journal is under 40%.

Information Systems Education Journal is pleased to be listed in the 1st Edition of Cabell's Directory of Publishing Opportunities in Educational Technology and Library Science, in both the electronic and printed editions. Questions should be addressed to the editor at editor@isedj.org or the publisher at publisher@isedj.org. Special thanks to members of AITP-EDSIG who perform the editorial and review processes for ISEDJ.

2017 AITP Education Special Interest Group (EDSIG) Board of Directors

Leslie J. Waguespack Jr
Bentley University
President

Jeffry Babb
West Texas A&M
Vice President

Scott Hunsinger
Appalachian State Univ
Past President (2014-2016)

Meg Fryling
Siena College
Director

Lionel Mew
University of Richmond
Director

Muhammed Miah
Southern Univ New Orleans
Director

Rachida Parks
Quinnipiac University
Director

Anthony Serapiglia
St. Vincent College
Director

Li-Jen Shannon
Sam Houston State Univ
Director

Jason Sharp
Tarleton State University
Director

Peter Wu
Robert Morris University
Director

Lee Freeman
Univ. of Michigan - Dearborn
JISE Editor

Copyright © 2017 by the Education Special Interest Group (EDSIG) of the Association of Information Technology Professionals (AITP). Permission to make digital or hard copies of all or part of this journal for personal or classroom use is granted without fee provided that the copies are not made or distributed for profit or commercial use. All copies must bear this notice and full citation. Permission from the Editor is required to post to servers, redistribute to lists, or utilize in a for-profit or commercial use. Permission requests should be sent to Jeffry Babb, Editor, editor@isedj.org.

INFORMATION SYSTEMS EDUCATION JOURNAL

Editors

Jeffry Babb
Senior Editor
West Texas A&M University

Thomas Janicki
Publisher
U of North Carolina Wilmington

Donald Colton
Emeritus Editor
Brigham Young Univ. Hawaii

Cameron Lawrence
Teaching Cases Co-Editor
The University of Montana

Anthony Serapiglia
Teaching Cases Co-Editor
St. Vincent College

Samuel Abraham
Associate Editor
Siena Heights University

Guido Lang
Associate Editor
Quinnipiac University

Muhammed Miah
Associate Editor
Southern Univ at New Orleans

Jason Sharp
Associate Editor
Tarleton State University

2017 ISEDJ Editorial Board

Ronald Babin
Ryerson University

Scott Hunsinger
Appalachian State University

Alan Peslak
Penn State University

Nita Brooks
Middle Tennessee State Univ

Musa Jafar
Manhattan College

James Pomykalski
Susquehanna University

Wendy Ceccucci
Quinnipiac University

Rashmi Jain
Montclair State University

Franklyn Prescod
Ryerson University

Ulku Clark
U of North Carolina Wilmington

Mark Jones
Lock Haven University

John Reynolds
Grand Valley State University

Jamie Cotler
Siena College

James Lawler
Pace University

Samuel Sambasivam
Azusa Pacific University

Jeffrey Cummings
U of North Carolina Wilmington

Paul Leidig
Grand Valley State University

Bruce Saulnier
Quinnipiac University

Christopher Davis
U of South Florida St Petersburg

Cynthia Martincic
Saint Vincent College

Li-Jen Shannon
Sam Houston State University

Gerald DeHondt II

Lionel Mew
University of Richmond

Michael Smith
Georgia Institute of Technology

Mark Frydenberg
Bentley University

Fortune Mhlanga
Lipscomb University

Karthikeyan Umapathy
University of North Florida

Meg Fryling
Siena College

Edward Moskal
Saint Peter's University

Leslie Waguespack
Bentley University

David Gomillion
Northern Michigan University

George Nezek
Univ of Wisconsin - Milwaukee

Bruce White
Quinnipiac University

Audrey Griffin
Chowan University

Rachida Parks
Quinnipiac University

Peter Y. Wu
Robert Morris University

Stephen Hill
U of North Carolina Wilmington

Increasing Student / Corporate Engagement

Thomas N. Janicki
janickit@uncw.edu

Jeffrey W. Cummings
cummingsj@uncw.edu

Information Systems and Operations Management
University of North Carolina Wilmington
Wilmington, NC 28403

Abstract

Increasing dialog and interaction between the corporate community and students is a key strategic goal of many universities. This paper describes an event that has been specifically designed to increase student and corporate engagement. It describes the process of planning and executing a targeted career day for information systems and information technology majors. The results have been an increase in full time placements and internships for both undergraduate and graduate students. Additionally, the reputation of the program quality among employers has increased as well. Internally, career day has assisted in recruiting new majors to both programs.

Keywords: Community Engagement, Corporate Engagement, Job Placement, IT Major Growth

1. INTRODUCTION

There are calls for MIS and CIS curriculums to include more engagement between the corporate world and students. Both AACSB (2015) and ABET (2013) report guidelines for academicians to involve more corporate and real world experiences into the learning environments. Student and corporate engagement may take many different avenues to increase this dialog. A number of options include professionals speaking in the classroom, on the job training via internships/co-ops, real world projects from outside companies and even 'hack-a-thons' sponsored by various companies and advisory boards.

This article discusses one potential avenue for increasing engagement between students and IS/IT Professionals. We discuss the implementation of an annual Information

Systems (or Information Technology) Career Day. The paper is structured as follows: a brief literature review concerning corporate/university engagement, a review of the history of the event, goals and set-up for the event and finally, the particular segments of the event and its results.

2. LITERATURE REVIEW AND BACKGROUND

In recent years, there have been numerous challenges facing many universities especially programs in business and technology. A fundamental challenge often cited concerns how to make education more relevant to students entering the workforce (Davis, 2013). Many times curriculum focuses primarily on concepts and theory without emphasis on application of the material. This had led many universities to advocate for more experiential learning which includes the involvement with the corporate

community working on real life projects (Gentry et al., 2015).

These types of community/industry partnerships are even more important for STEM degrees/programs such as information systems and information technology. Industry involvement is often the cornerstone of many successful STEM programs with calls to begin industry involvement as early as possible (e.g. the high school level) (Watters & Diezmann, 2013). Furthermore, this collaboration has been found to be even more important for technology related degrees (Stroud & Hopkins, 2016). However, the challenge can be how to initiate or increase industry collaboration. Davis (2013) suggests there are several ways to increase partnerships including trips to organizations, industry guest speakers, industry presence on-campus and internships with companies. The goal is for businesses to take a more active role in higher education.

One approach to accomplish many of these initial engagements is through the use of career fairs. Career fairs offer students the opportunity to interact with a variety of employers. Studies show that a significant number of students find more internships or entry-level positions through career fairs compared to electronically searching for positions (NACE, 2015). Career fairs also offer faculty and administration the chance to develop relationships with industry to help with curriculum development and research opportunities (Davis, 2013). Faculty have the opportunity to engage with employers to better understand what recruiters are actually looking for in students (Weeks et al., 2014).

However, a challenge many departments face how to even start a focused career day for IS and IT students. This research reports the experiences of a mid-sized (~15,000 students) public state university and how to successfully initiate a focused IS/IT career fair. The career day is based on two pillars from the vision for the university (Jenkins, 2016):

- Organize for effective engagement with the community and the world, and communicate efforts broadly and effectively and
- Invest in programs and services that support post-graduation success, such as career placement efforts and preparation for graduate school applications.

As a result of the call for more community engagement and to provide increased career

placement efforts, the Information Systems Advisory Board recommended the development of an IS Career Day. The event was initially designed for IS majors (and prospective majors) to learn more about specific careers in the field. It also helped companies meet some of the best IS prospects for internships and full time placement. As a result, a half day event was developed to bring together industry and students.

3. GOALS OF THE EVENT

The event is now going into its eleventh year and has grown steadily from a small event (10 firms, 100 students) to last year's event having 34 IT firms, 20 IS alumni speaking and over 250 students. As a result of the success and growing number of participants, the goals have also grown. Currently, the goals are:

- a) Increasing current students' knowledge of career paths in IS and IT
- b) Increasing the number of majors for both IS and IT
- c) Increasing the knowledge and reputation of the university's programs in technology
- d) Increasing the number of internships
- e) Increasing the number of full time job placements before graduation
- f) Increasing the skills of our students
- g) Self-fund the event

Each of these goals are accomplished through specific activities that occur on or before the actual event. These activities are described in the next section.

The Career Day event is composed of the following segments (an example of the event schedule is included in Appendix A):

1. Keynote presentation by a key corporate member (45 minutes)
2. "A Day in Life" presentations by recent alumni detailing their first years on the job in IS and IT
3. Interview / Information tables by selected IS and IT employers

4. CAREER DAY ACTIVITIES

Career Day is the mixture of several goals in one event. As previously mentioned, those goals are: the recruitment of new majors, helping current majors decide the best career path for them, industry engagement, company

interview/information tables and internships and job placements.

Keynote Speaker

The kickoff of career day is a keynote presentation by a high ranking professional in IS/IT. Prior speakers have included CIOs and Vice Presidents of regional companies. The keynote speaker generally focuses on skills they personally learned in college to help them advance and also how students can prepare for their first year on the job. The keynote speaker presentation averages 45 minutes in a large auditorium with all students and employers encouraged to attend. A key side benefit of the speaker is achieving the goal of self-funding the event as the keynote is generally selected from organizations that help sponsor/fund the event.

"A Day in the Life" Alumni Speakers

Following the keynote, there are 3 separate 25-minute breakout sessions presented by former alumni. These alumni discuss their specific careers and what they did during their first year on the job. This resonates well with undergraduates as they relate to these younger alumni and many students know them from previous coursework. There are multiple topics occurring at the same time to allow students to choose which topic most interests them.

The "Day in the Life" topics vary across different areas in IS/IT and include Business Analyst, Software Engineer, Quality Assurance Analyst, Data Analytics Analyst, and Network Engineer (see Appendix A for a complete list of topics typically presented). The goal of these sessions is to help juniors and seniors decide on a specific career path and to assist sophomores to determine if IS/IT is the correct career path for them. Each of the 3 sessions typically have 4 to 5 topics per session.

Another feature of the breakout sessions is to have current IS/IT students introduce the speakers. This helps students increase their communication skills while establishing a tie to young alumnus(ae). Students are recruited through the IS/IT club and are given an overview of what is expected of them during the event (see Appendix B for instructions given to students).

Company Information / Interview Tables

Following the breakout sessions, the heart of the event is 'speed interviewing'. Employers typically have multiple representatives staff an information table and students have 2 to 3 minutes to make an impression on the employers. The goal is for

the student to learn more about our regional technology firms and also for our employers to quickly meet and determine if the student qualifies for another step toward employment with that firm.

The normal time frame for this event has been approximately 75 minutes, but key corporate college recruiters have told us that they receive more resumes from qualified students in 75 minutes versus 8 hours at a typical all day career fair.

Miscellaneous keys to success

Several other 'detailed' items make the event more successful:

- Food is a student motivator. We have found serving heavy hors d'oeuvres to be a great vehicle to get students to come to the event and remain at the event.
- Name badges indicating the year of the student and their major(s) help employers focus in on particular interview questions
- Dress code is business casual for students (ensure you define business casual for your participants)
- It is recommended that all majors carry resumes with them and they request business cards from all company representatives they meet.
- Faculty are expected to participate and encourage students to talk to specific employers. It is critical that faculty 'push' students toward specific employers as students can be reserved. A brief introduction may really break the ice.
- Provide all speakers with gifts

5. PRE-PLANNING

Coordinator pre-planning

The recruitment of firms is a key to success. Our event started with only 10 firms the first year and has grown to 34 employers last year. Even with only 10 firms, it was a success as many students received internships and full time employment from the event. A great place to start to recruit employers for the event is to reach out to college recruiters at larger firms, prior internship mentors and members of an advisory board. In addition, by extending invitations to present to young alumni, the employers of those alumni have started to attend and setup interview tables. We now do a 'save the date' email of our annual career day six months in advance to both prior and potential employers. We treat every

request for an internship over the year as a potential new employer for career day.

To pay for the event, we have explored a number of options including charging for interview tables and finding sponsors for the event. Firms are charged a minimal fee of \$50 for their table. We did not initially charge firms for tables but we found that employers would cancel last minute as they had not invested any money into the event. In addition, we have recruited two key underwriters for the event. The event is now self-funded paying for all of the food, speaker gifts and any other miscellaneous expenses without asking the department for any funds.

To assist both the firms (in their recruitment) and students (in search of employment), an informative web site is key. The current site contains not only a list of firms participating, but the key attributes they are seeking for at their firm. A typical example would be: *interested in IS/IT juniors seeking an internship in software development, minimum GPA 3.0 and development knowledge with C# or pHp*. In addition to the company attributes, we post links to each of the firms' college hiring pages or the homepage of the company. This is to help students to research companies ahead of time to be prepared for the day.

Student pre-planning

We have found that including student clubs to assist in the event to be a successful approach. For many students, this may be the first time they are interacting with potential employers in a professional setting. The clubs are encouraged to have meetings in advance of career day where the following could be discuss (a sample of the information covered is in Appendix C):

- a) Resume tune-ups
- b) Your three-minute elevator pitch
- c) How to learn more about the firms
- d) Follow up to the events
- e) Dress for success

We have also recruited career services on campus to help with the presentation. Career services spoke about basics from dress to how to shake hands. They even had a professional photographer taking head shots for LinkedIn followed by a short session on how to set up a professional LinkedIn profile.

6. RESULTS

Over its ten-year history, Career Day has been one activity that has increased the engagement between our corporate friends and our students and faculty. As a result of this event, our students are consistently getting jobs year after year. For the past three years, the IS major has averaged over 80% of graduates finding full time employment on or before graduation day. This percentage increases even more when measured at the 30 days after graduation. In addition to full time employment, over 70% of our graduates have a paid internship before graduation. Our percentage of internships prior to career day was less than 30%.

We are also above the national average pay for IS graduates. A nationwide survey in 2014 found that the average pay for IS starting graduates was \$51,900 (Payscale, 2014). Our students graduating in 2014 made an average of \$55,000. The starting salary in 2016 for MIS graduates directly out of school was \$59,600.

The number of majors in the IS and IT programs has doubled since career day was started. Career Day was not the only reason, but the fact that we publicize that our students get jobs and internships has helped those students who have a passion for technology understand potential career paths more clearly.

From an employer involvement perspective, we are now on the 'target' schools list for four Fortune 500 companies. Being in a city of only 160,000 people and 2 hours away from the closest Fortune 500 Company we consider a real achievement. The average recruiter travels more than 2 hours to come to our event.

A number of other benefits have occurred from Career Day. Many recruiters have begun to come to classes to talk about the company and opportunities in IS/IT. For example, a company looking for developers will come to speak to the development course during the day of Career Day. They often discuss how the topics covered in the class relates to their existing position which provides course relevancy for students. They have also talked with introductory courses which has encouraged many students to consider IS/IT as a major.

In addition to speaking in class, recruiters from career day have also invited students to travel to their businesses. This has resulted in two annual trips in which more than 50 students get to visit

a variety of companies. In fact, students have even received interviews and job offers based on attending these trips.

Finally, a future recruitment tool being discussed is filming the day in the life presentations. This would be especially helpful in the introductory courses in which students often don't get a good understanding of what a career in IS looks like.

7. SUMMARY

This article described an event to assist in full time job placement and internships for IS/IT majors. After ten years, the school's reputation among Information Systems and Information Technology majors has significantly increased. Engagement with the business community is at an all-time high and some regional employers post jobs just within the department and not campus wide. Overall, career day has helped the number of majors to increase through industry engagement. Our student's now have a better understanding and knowledge of careers in the field.

8. REFERENCES

AACSB (2015) Introduction and Rationale for Using NSSE in AACSB Business Accreditation <http://nsse.indiana.edu/institute/documents/accred/2015//AACSB%20Toolkit%202015%20%20Business.pdf>

ABET (2013) - Criteria for Accrediting Computing Programs Mapped to 2013 NSSE Survey Questions, http://nsse.indiana.edu/institute/documents/accred/spec_2013/ABET_COMPSCI2013.pdf

Davis, M. M. (2013). Challenges Facing Today's Business Schools. In *Shaping the Future of*

Business Education (pp. 26-39). Palgrave Macmillan, UK.

Gentry, J. W., Kaulbach, M., Smith, J. A., Simon, R., Feinstein, A. H., & Burns, A. C. (2015). The Changing Academic Environment: What Role Will Experiential Learning Play in the Survival of Higher Education. *Developments in Business Simulation and Experiential Learning*, 42.

NACE (National Association of Colleges and Employers) (2015). Spring 2015 Salary Survey. Bethlehem, PA.

Payscale (2014) - <http://www.payscale.com/college-salary-report-2014/majors-that-pay-you-back>

Stroud, D., & Hopkins, A. (2016). Aspects of mutual engagement: School of engineering and industry collaborations. *Higher Education Pedagogies*, 1(1), 30-41.

Watters, J. J., & Diezmann, C. M. (2013). Community partnerships for fostering student interest and engagement in STEM. *Journal of STEM Education: Innovations and Research*, 14(2), 47.

Weeks, W. A., Rutherford, B., Boles, J., & Loe, T. (2014). Factors That Influence the Job Market Decision The Role of Faculty as a Knowledge Broker. *Journal of Marketing Education*, 36(2), 105-119.

Jenkins, V. (2016) Chancellor Sartarelli Unveils Comprehensive Strategic Plan in Conjunction with Installation - <http://uncw.edu/news/2016/03/chancellor-sartarelli-unveils-comprehensive-strategic-plan-in-conjunction-with-installation.html>

Editor's Note:

This paper was selected for inclusion in the journal as the EDSIGCon 2016 Best Paper. The acceptance rate is typically 2% for this category of paper based on blind reviews from six or more peers including three or more former best papers authors who did not submit a paper in 2016.

Appendix A: Sample Career Day Schedule

10th Annual Information Technology / Operations Management Career Day

Schedule

3:00 to 6:00 PM – Speaker and Employer Check-in/Reception

3:30 to 4:05 PM – Keynote Speaker

Everyone welcome – will discuss skills important to all new professionals

4:15 to 4:45 PM – Breakout Sessions (Select one topic of interest to you)

Topics Included: Software Developer, Project Manager, Interview Skills, Leadership Program, Systems Engineering, Business Analyst

4:50 to 5:20 PM – Breakout Sessions (Select one topic of interest to you)

Topics Included: Systems Administrator, Quality Management, Software Developer, Employment Seeking Tips, Leadership Program, Finding Positions as a Graduate Student

5:25 to 5:55 PM – Breakout Sessions (Select one topic of interest to you)

Topics Included: Software Developer, User and Production Support, Cyber Security, Project Management, Internships, Systems Analyst/SCRUM Developer

6:00 to 7:15 PM – Interview / Information Tables

- Everyone welcome
- Meet employers looking for interns as well as full time employees
- Practice your interview skills, learn about opportunities and mix with employers, students and faculty

** Note: For anonymity, some of the scheduled was removed for review purposes. The actual schedule printed for students includes the following:*

- *Each Breakout Session is listed in a separate table and includes a list of the topic, majors of interest, and speaker information.*
- *An additional table is also included that lists all of the companies who have interview tables, contacts at the company and majors they are interested in hiring.*

Appendix B:
Student Host Check Sheet

1. Pick up speaker(s) biographies, speaker(s) gifts, attendance sheets, and "5-minute warning" card at registration desk.
2. Introduce yourself to the presenter(s), make them feel comfortable; tell them where the rest rooms are located.
3. Escort speaker(s) to assigned room.
4. Assist speaker(s) with audio-visual.
5. Set up attendance sheet for students seeking extra credit.
6. Take an actual count of the number of attendees (in addition to the attendance sheet).
7. Introduce speaker(s).
8. Sit in back of room. Cue the speaker(s) when there are 5 minutes remaining by holding up the "5-minute warning".
9. Thank the speaker(s) and give gifts.
- 10. BE SURE TO REMIND STUDENTS TO TAKE THE SURVEY!**

*******Return this sheet and the attendance sheet to the registration desk*******

Topic: _____

Number of attendees: _____

Appendix C: **Student Career Day Prep**

1) Dress – business casual at a minimum

There are many good online resources that are included during the presentation to students. You can also have the student club officers dress up for the meeting to demonstrate what is appropriate to wear.

2) Pre-Career Day Preparation

- a. Visit the career day website and have a plan
- b. Details are included about what each company is looking for – know what you are interested in or what to ask about further
 - i. DO NOT ASK WHAT THEY ARE HIRING FOR UNLESS YOU CAN'T FIND IT ON THE WEBSITE (we normally include all positions for each company)
- c. Also, look at some details about the company itself
 - i. Be able to go up and talk to employers about what you like about the company
 - ii. DO NOT ASK THEM WHAT THE COMPANY DOES (find out ahead of time, you will have time while waiting in line to review any notes about the specific company)
 - iii. Ask questions to find out more about what they are doing now (e.g. projects they are working, what is coming down the line, etc.)
- d. Create a list of employers you want to visit and jot down the notes/topics you want to bring up with them.
 - i. Rank them so you know who you want to be sure to talk to
 - ii. For practice, try one of the companies further down the list. This will help you get comfortable with talking to employers to be ready for the number 1 company you want to work for.
- e. Resume – be sure to have multiple copies of your resume.
 - i. Technical resumes are a little different than what you are taught in your introductory business courses.
 - ii. Highlight skills/knowledge – go through the courses you have taken thus far and be sure to include these in the skill section.
 - iii. Look for something that might set you apart (Previous work, hobbies that relate to technology, etc.)