IT Summit 2013

July 10, 2013
8:00 a.m.–4:30 p.m.
Student Union Memorial Center

EXPLORING COLLABORATION AND BEST PRACTICES ON CAMPUS
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Welcome to the IT Summit!

Dear Attendees,

Welcome to the University of Arizona’s inaugural IT Summit! This exciting, first of its kind event is your opportunity to meet other UA IT Professionals, learn about new technologies and their applications, and discover possibilities for collaboration.

The IT Summit Steering Committee, comprised of IT leaders from across campus, has worked hard over the past seven months to create an event that will be valuable to you and your work here at the UA.

The Committee has planned an excellent lineup of presentations by your peers, an interesting keynote speech from the University’s very own Dr. Allan Hamilton, a poster session showcasing IT projects and initiatives on campus, a networking reception, and great prize drawings! And of course, this event would not be possible without the generous support of our sponsors: World Wide Technology, Inc., EMC Corporation, Cisco, IBM, Adobe, and VMware.

The Office of the CIO is sponsoring the IT Summit because I believe it is important to foster more communication and information sharing among our peers on campus and to provide an interesting and informative professional development opportunity for you.

Please enjoy what I hope will become an annual event for our UA IT Community!

Sincerely,

Michele Norin
Chief Information Officer

Please visit the IT Summit website, itsummit.arizona.edu, for presenter biographies, links to sponsors, and presentations.
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Opening Remarks

Ann Weaver Hart
President, University of Arizona

Dr. Hart became the 21st President of the University of Arizona in July 2012, after holding the same position at Temple University. She holds a B.S. and M.A. in History and a doctorate in Educational Administration from the University of Utah. Her research interests include leadership succession and development, work redesign and organizational behavior in educational organizations, and academic freedom.

Welcome

Michele Norin
Chief Information Officer, University of Arizona

Ms. Norin began her career at the University of Arizona over two decades ago and held various positions of increasing leadership within UITS before being appointed CIO in 2007. She has a Bachelor’s in MIS and a Master’s in Educational Leadership from the University of Arizona. In 2011, she received the Education CIO of the Year award by the Arizona Technology Council.

Keynote Address

Dr. Allan Hamilton
Professor of Surgery, UA College of Medicine

Dr. Allan Hamilton graduated from Harvard Medical School and joined the neurosurgical faculty at the University of Arizona in 1990. In 1995 he became the Chief of Neurosurgery, and in 1997 became Chairman of the Department of Surgery. Dr. Hamilton has been recognized for his research in the design and application of computerized guidance systems in neurosurgery.
Let’s Give Them Something to Talk About: IT Across Campus
9:15 Santa Rita Room

Robert Macarthur, Program Director, Network/Data Programs, College of Agricultural and Life Sciences
Brian Atkinson, Director, Technologies and Facilities Planning, College of Social and Behavioral Sciences
Bernadine Cannon, Web Services Manager, UITS;
Bart Rossmann, Director, Instructional and Research Computing, College of Humanities

Under a new participatory IT governance model, various campus groups and individuals are now working on leading IT issues in higher education, including cloud computing, big data, and mobility. The charge of the Common IT Reporting team is to:

• Help campus IT projects work in concert with one another, and utilize a common campus IT model to reach fruition.
• Provide visibility to the campus of planned and ongoing IT projects.

This presentation will demonstrate where campus IT initiatives fit within the campus mission and the governance/workflow process that will see them move from an initiative to a completed project or service.

Ten Years to the Future
10:30 Santa Rita Room

Ryan Duitman, IT Manager, UITS

The Strategic Network Master Plan is a long-term initiative to upgrade and advance the network and telecom systems on the UA Tucson and Phoenix campuses over the next ten years. In the Strategic Development phase, UITS has engaged various colleges, departments, IT governance groups, and senior campus leadership to achieve the campus strategic goals: greater mobility; modernizing communication systems; and providing greater stability and resiliency for campus data, voice, and video infrastructure. Campus stakeholders will be engaged to develop the implementation plan based on these goals. Finally, after funding has been secured, the implementation plan will be executed, starting the transformation to the next generation network. Come learn about the process, and how the overall plan is going to benefit the UA campus.
Information Security Crossroads: Where to Next?
1:15 Santa Rita Room
Christian Schreiber, University Information Security Officer

Information Security is a complex and ever-changing topic. Organizations’ information security programs are only successful if the programs are collaborative, agile, and adapt readily to the broad range of roles and responsibilities across the broader enterprise. Join the UA’s Information Security Officer for a discussion of the short and long-range vision for Information Security across campus. In addition to discussing our overall strategy and guiding principles, we will discuss planned future initiatives and how they fit into the broader University mission.

From Go-Live to Doomsday: Building a Team to Survive the Coming Crisis
2:30 Santa Rita Room
Mike Simpson, Technical Manager, ERP Applications, UITS

We spend a lot of time designing our hardware and our software for high availability and disaster recovery, but none of that is particularly useful if your staff falls apart in the middle of a crisis. The psychologist Karl Weick coined the term “organizational resilience” and described the characteristics that produce it. We’ll look at the original incident on which Weick based his analysis, and talk about his definition of resilient groups. Then we’ll examine a specific team that supports several pieces of our campus ERP services, how they rank in terms of resilience, and how they performed during a recent critical system failure.

BIG DATA

AZSITE: Where the Stone Age Meets 2001 Space Odyssey
9:15 Tucson Room
Shannon D. Twilling, M.A., Research Specialist, AZSITE/Archaeological Records Office, Arizona State Museum

AZSITE is a Geographic Information System that serves as a consolidated informational network of recorded cultural resources and related research within the state of Arizona. This is a collaborative project between the Arizona State Museum, the Archaeological Research Institute, the State Historic Preservation Office, the Museum of Northern Arizona, the City of Phoenix, and the Bureau of Land Management. The system is run by a consortium that manages, maintains, develops, and controls access to the database. The database consolidates more than 50 agencies worth of data, aids in better and more efficient research, and is entirely financially self-supporting. The presentation will cover the history, development, and research applications of the system.

Django & SlickGrid: Unchain Your Big Data
10:30 Tucson Room
Nick Eddy, Senior Student Developer, Bio Computing Facility, Arizona Research Laboratories

Genome scale analysis workflows produce large amounts of data which needs to be sifted for lead discovery. Downloading huge datasets to individual desktops poses privacy and security concerns, and overloads desktop applications like Excel. Web applications can also suffer from performance issues when dealing with large data grids. Recent improvements in web browsers and open source JavaScript frameworks have led to the development of memory-efficient data grids like SlickGrid. The Bio Computing Facility has built a web application using Django and SlickGrid to assist researchers and physicians with the analysis of large scale exome sequencing data using their web browser. The application allows them to load a full set of annotated genetic variants (exomic) by patient or family group, and in real time sort, filter, and search by chromosomes or any data element. Researchers can export results and save query criteria for subsequent use.

We Put the Standard in Operating Procedures
1:15 Tucson Room
David Parizek, Senior Applications System Analyst/Developer, Bio Computing Facility, Arizona Research Laboratories

Standard Operating Procedures (SOP) are a crucial component in disciplines such as biomedical research. With more emphasis being placed on GLP (Good Laboratory Practice) and CLIA (Clinical Laboratory Improvement Amendments) based certification for laboratories, the Bio Computing Facility has developed a new Drupal application to manage SOPs, replacing binders full of printed step-by-step instructions. Using an online process is a more streamlined approach to document management that maintains standardization of tasks while minimizing document versioning control issues and out of date copies. This presentation will demonstrate many of the robust features of the new tool such as user-customizable fields, access control based on user-configured roles, UA Net ID integration, a WYSIWYG editor, the ability to upload and attach files and include images in content, and much, much more. The application has broad applicability for other domains, and there are plans to roll it out as Software as a Service to the community at large.
OpenStack: The Sky is the Limit
2:30 Tucson Room
Edwin Skidmore, Assistant Director of Infrastructure, iPlant Collaborative/BIO5

“Cloud” may be a square in buzzword bingo for some IT organizations, yet these same organizations continue to pay significant costs for commercial virtualization software. OpenStack is an open-source, cloud software that can be a viable alternative for your server and virtualization needs. This presentation will provide an overview of OpenStack, how it is being used within the iPlant Collaborative, tips for anyone interested in deploying OpenStack, and a demonstration in using OpenStack.

IT Best Practices

Tales from the Encryption: HIPS
9:15 Catalina Room
Donald Merson, Senior Application Developer, Principal, Student Affairs Systems Group

When an intruder goes looking for data, a field of obvious nonsense values is a big clue that that's the data to try to decrypt. Hide-In-Plain-Sight (HIPS) is a new method of encryption that encrypts data in a way that looks normal. Authorized users will know which fields to apply the decryption key to, and unauthorized users will not. When you use HIPS, an intruder will need to first determine what data has been encoded before they can start decoding the sensitive information. This presentation will showcase three HIPS techniques that can be used by any application with a minimum level of effort for Social Security numbers, date of birth, city, state and ZIP code.

Log Visualization: Watching the Watchers
10:30 Catalina Room
Sangeeta Kuchimanchi, Infrastructure Services Integrator, iPlant Collaborative

One of the most time-consuming and soul-crushing tasks of IT operations is scouring multiple log files for clues on why a server is down, a network is unresponsive, or applications are misbehaving. Endless hours can be spent with grep, awk and sed to find the relevant error or debug information. With a proper log monitoring and visualization infrastructure in place, this task can be reduced to mere clicks. This presentation will focus on how iPlant Collaborative uses logstash, an open source software for building a log infrastructure. It will also highlight Kibana, a tool that is used with logstash and elasticsearch for visualizing log data.

Easy as Breathing: Atmosphere is the Cloud for Everyone
11:00 Catalina Room
J. Matt Peterson, Lead Software Engineer, iPlant Collaborative/BIO5
Monica Lent, UX Designer, iPlant Collaborative/BIO5

At the iPlant Collaborative, academic researchers use our cloud service Atmosphere to freely create and run data-intensive bioinformatics analyses—easy server management and virtualization for IT staff, and stable, reproducible work environments for scientists. Atmosphere makes the cloud easier to use and more approachable, so users can get started with the cloud while knowing little to nothing about virtualization. A large number of our users are now proficient enough to require little technical assistance to accomplish their research. Atmosphere leverages both private clouds (running Eucalyptus/OpenStack) and public clouds (Amazon/RackSpace), offering users the flexibility to provision resources that are most appropriate for the task and cost requirements. This presentation will discuss and demonstrate Atmosphere, our lessons learned, and common use cases.

Configuration Management with Puppet—Where You Pull the Strings
1:15 Catalina Room
John Masterson, Systems Programmer, Principal, College of Engineering

Puppet applies consistent, established policies to all the systems we are managing in a relatively easy-to-use package, and takes advantage of SSL for security. It supports most L/UNIX distributions and current Windows versions. With Puppet as a framework for your entire collection of systems, you can establish a standard operation environment, and report on or control configuration drift, auditing activities, and security policy management. You can define the state you want the system to be in and then apply the processing to get and maintain that state with minimal operator intervention. This presentation will give a brief introduction to and some use cases of configuration management with Puppet.

Building Software Together: Your Team, the World!
2:30 Catalina Room
Tom Bourgeois, Executive Director Student Affairs Information Systems, Student Affairs Systems Group

GitHub is a platform for managing code in a software project, and also for taking advantage, in a collegial way, of what other people around the globe have developed. There are paid plans for private repositories, and free accounts for open source projects. This presentation will highlight the GitHub platform, what it is, how it works, and lessons learned.
“Capturing Campus”: Through the Lens—A Bird’s Eye View of Teaching

9:15 Rincon Room

**Gregory Anderson**, Senior Information Technology Support Analyst, Office of Student Computing Resources  
**Melody Buckner**, Specialist, Instructional Design, Outreach and Global Initiatives

At the University of Arizona, a new technology has been introduced to campus. Panopto is a presentation capture platform that is used to capture, edit, stream, archive, and share recordings of classroom interactions, lectures, presentations, student demonstrations, and role-playing scenarios. Panopto is integrated with UA’s learning management systems: D2L, and Blackboard at Eller. It is also used with Automatic Sync Technologies for closed captioning. Students can view recordings from the internet to review classroom content, assess their peers’ work as well as their own, and create recordings for course work. Panopto can be used to capture a variety of media from various sources. It can be as simple as an audio recording using a laptop or as complex as recording from two computers, cameras, and projection in a classroom. Come and join us for a demonstration of Panopto and how it can be used effectively for teaching and learning.

Who You Gonna Call When Phone Counseling Goes Cloud?

10:30 Rincon Room


The LiVES Project—Lifestyle Intervention for Ovarian Cancer Enhanced Survival—is studying whether or not phone-based counseling can enhance survivorship in ovarian cancer patients. To better manage scalability, ARL is using Twilio’s cloud telephony and a Drupal application developed by the Bio Computing Facility that uses Twilio APIs to access their VoIP gateway services. The application allows researchers to oversee management of phone counseling sessions by student coaches, who can use the application to initiate the calls. The coaches and researchers have a dashboard where they can view outstanding and overdue calls, see custom user-generated information that needs to be emphasized in each call, record notes and view notes from previous calls, review and listen to previously recorded calls, and schedule calls.

So Many Books...So Little Time: Finding Library Resources within D2L

1:15 Rincon Room

**Mike Hagedon**, Senior Application Systems Analyst/Developer, University Libraries

Providing access to scholarly articles and information matched to a student’s course needs had always been difficult due to the challenges of increasing awareness for students around the many library resources available to them. Now with the use of a readily accessible Library Tools tab within the D2L course management system, librarians and instructors can deliver relevant resources to a particular course.

This presentation describes the construction of this new library tool, which makes library research guides scalable to a large number of courses. It will show how tools such as Symfony—an innovative and highly flexible web application framework for PHP 5.3—and Doctrine—an object-relational mapper—allow us to meet such requirements while creating software that is maintainable and understandable for the developer.

The Hitchhiker’s Guide to the Scholarship Universe

1:45 Rincon Room

**Donald Merson**, Senior Application Developer, Principal, Student Affairs Systems Group

Navigating the scholarship universe can be a daunting task for anyone to master. How can a student get the maximum scholarships benefit with minimal effort? The answer is Scholarship Universe (SU), an award winning application developed at the University of Arizona that has been used by over 25,000 students with a high level of success. SU matches students to multiple scholarships by answering a few questions with the help of the program wizard. The wizard determines which questions to ask, and more importantly, which questions not to ask.

Donald Merson, chief architect of the system, will explain the inner workings of the SU engine, starting with the concepts behind how scholarships are coded and why it is the only system that could handle matching students to any imagined scholarship in the world. He will also discuss the wizard, and discuss new innovations that are being developed for the system.
Think Inside the Box: Making Drupal Easy

2:30 Rincon Room

Bernadine Cannon, Web Services Manager, UITS

In this fast-paced university environment, websites are constantly emerging for projects, grants, and events. How can we effectively leverage and manage the University of Arizona brand while ensuring data/server security in such a fertile yet decentralized environment? The UA’s answer: Site-in-a-Box. This solution gives content managers affordable, professionally designed, feature-rich, mobile-responsive websites, delivered in a matter of days. In this presentation we will:

- Explain what Site-in-a-Box is
- Review the Training site
- Take a look at back-end configuration
  - Roles & Permissions
  - Modules used
- Discuss lessons learned and share what is on the horizon

Prize Drawings!

Great prizes—two separate drawings!

You must be present at the drawing to win!

You may enter only one drawing.

Both drawings will give you the opportunity to win:

- PLAIr plugin to stream to TV
- ChargeCard mobile cable
- FitBit Flex band activity tracker
- SmartSound smartphone case
- AfterShokz conduction headphones

More prize information is available at itsummit.arizona.edu.

Enter one!

■ 1:00 Drawing — after Lunch in the South Ballroom

Get your card punched at two morning sessions, and submit your card at lunchtime. Special Prizes:

- Kindle Fire HD provided by Cisco!
- Jawbone Jambox wireless speaker provided by VMWare!

■ 3:45 Drawing — after the Networking Reception in the North Ballroom

Get your card punched at two sessions plus the poster session, and submit your card at the networking reception. Special Prizes:

- Creative Cloud subscription provided by Adobe!
- AppleTV provided by WWT!

Thank you to WWT, Cisco, Adobe, and VMWare for providing special prizes.

POSTERS

Web/Mobile Development Vendors

Cy Barlow, IT Manager, Principal, Fine Arts Administration

To meet the growing demand for mobile apps, web development, and responsive design, the UA has established, via RFP, a vendor list to expedite external vendor selection and streamline the contracting process. See the selected vendors and how to contract with them.

Administration Technology Advisory Council (ATAC): What We Do

Lomax Boyd, Manager, Infrastructure Services, BIO5

ATAC, representing administrative UA departments, investigates emerging IT technologies and issues in collaboration with the IT community on campus to deliver solutions that help achieve the goals of the University.

Ning Social Network: Creating Community in Enterprise System Replacement

Melanie Cooley, IT Training Manager, UITS

Because learning is not confined to a classroom, UITS used Ning.com’s platform to create a robust professional network for users of UAccess systems, empowering users to reach out to experts—and become experts themselves.

D2L at Arizona: Integrations Added to the UA System

Mark Felix, Director, Office of Instruction and Assessment

Several integrations have been added to the Desire2Learn system at UA. Learn what’s been added, how the learning environment is available to all of campus, and the support that keeps it all running.

New Web Collaboration System: Blackboard Collaborate v12

Mark Felix, Director, Office of Instruction and Assessment

Blackboard Collaborate v12 has replaced Elluminate v10. Learn about its new features, some troubleshooting tips, and how Collaborate fits among campus video options.

Zabbix: Open Source Enterprise Monitoring

Mark Fischer, IT Support Analyst, Principal, UITS

UITs is implementing Zabbix, an open source monitoring solution, to keep track of the campus core network and central data center—over 3,000 devices, with over 200,000 unique metrics being recorded. Find out just how comprehensive and flexible Zabbix can be.

How to selectively import Active Directory users into Linux using ad2yp

John Gross, Principal System Administrator, Arizona Respiratory Center

The ad2yp tools are PHP scripts that copy the contents of security groups from an active directory server to files on a Linux system for NIS. See how this is configured to work with CatNet Active Directory Kerberos.
Frameworks and Security in LMS Design

Zachariah Hoffman, Assistant Director, Application Development, College of Medicine

In redesigning our student and faculty portal, we focused on frameworks—to enforce design and logic flow and speed development—and a robust security model.

Arizona Telemedicine Program (ATP) Network

Mike Holcomb, Associate Director, IT, Arizona Telemedicine Program, College of Medicine
Kristine Erps, Associate Director, Administration, Arizona Telemedicine Program
Ronald S. Weinstein, MD, Director, Arizona Telemedicine Program

ATP provides a telemedicine network to over 50 Arizona healthcare organizations, linking more than 160 sites for real-time and store-and-forward telemedicine communications, connecting patients with expert medical care and students with health educators.

Making Paper a Thing of the Past—How Electronic Document Management Benefits the College of Medicine

Michael Jean, Business Analyst, Senior, College of Medicine IT Services, Records Management
Jennifer Yelich, Office Specialist, Senior, College of Medicine IT Services, Records Management

We provide a complete Records Management service solution for the College of Medicine to capture, manage and preserve vital records in electronic format to ensure strong records compliance and transform daily business operations to promote efficiency.

The Semantic College Website

Max Lieberman, Web Content Manager, College of Medicine

A new College of Medicine website uses Drupal 7 to provide searchable databases for policies and forms; a faculty and staff directory from UAccess data; and a scalable calendar system.

Ready – Set – Go! Event Websites with Registration and Payment Made Simple

Cheryl Novalis-Marine, Senior Applications Architect, College of Medicine IT, Office of Continuing Medical Education

The Office of Continuing Medical Education has contracted RegOnline.com software to simplify and streamline live event/conference website creation, registration, and payment.

Smart Planner

Brandon Romero, Business Analyst, UITS

PeopleSoft Academic Advising is great for degree checkout but does not provide an easy way for students to plan future semesters. UA created the Smart Planner so advisors can focus more on student development and less on the prescriptive side of advising.

Campus Virtualization Working Group

Bart Rossmann, Director, Instructional and Research Computing, College of Humanities

The Virtualization working group consists of IT staff on campus to gather, present, and review currently available virtualization technologies and provide this information into a format contextualized for all campus IT staff.

All About CatNet

Bart Rossmann, Director, Instructional and Research Computing, College of Humanities
Koabi Brooks, IT Support Analyst, Senior, CAPLA Administration

CatNet—Enterprise Active Directory Domain Services: What is it? What are the features? The benefits? The limitations?

Developing an Information Security Culture

Gil Salazar, Information Security Analyst, Senior, Information Security Office

Policy development and security awareness classes are not enough. With numerous risks to our critical data, only a significant change in organizational culture can really reduce that risk and lower the number of security breaches.

At Ease: Get Comfortable with Public Speaking at ITCats Toastmasters Club

Lisa Stage, Marketing Specialist, Office of the CIO

At the ITCats Toastmasters Club, UA IT professionals practice speaking in a fun, friendly, supportive environment, as well as developing their listening and leadership skills.

Cave2 + Google ProjectGlass

Brandon Theis, IT Support Analyst, Principal, Lunar and Planetary Sciences Laboratory

Combining open-source, user-generated content and immersive projected environments can create holodeck-like learning spaces to better visualize data and engage learners.

2013–2014 NetVision Goals

Dane Velasquez, Systems Administrator, College of Fine Arts
Dirk Harris, Manager, Technical Projects and Logistics, College of Social & Behavioral Sciences

NetVision is made up of subcommittees within Network Managers that discuss and report on campus IT projects. Going forward, where can NetVision best provide assistance? Give your input.

Identity Ecosystem

Gary Windham, Senior Enterprise Systems Architect, UITS

Learn the key aspects of UA’s Identity and Access Management environment, areas and issues on which the Identity Ecosystem team is focusing, and future directions and objectives.
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# Agenda at a Glance

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
<th>Map Details</th>
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<tbody>
<tr>
<td>7:30 am</td>
<td>Check-In</td>
<td>Atrium</td>
<td>Down to 2nd Street Garage, Mountain Ave.</td>
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<td>8:00 am</td>
<td>Continental Breakfast</td>
<td>South Ballroom</td>
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<tr>
<td>8:30 am</td>
<td>Welcome, Michele Norin, CIO</td>
<td>South Ballroom</td>
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<tr>
<td>8:45 am</td>
<td>Opening Remarks, Ann Weaver Hart, President</td>
<td>South Ballroom</td>
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<td>9:15 am</td>
<td>Breakout Sessions</td>
<td>Santa Rita/Tucson/Catalina/Rincon</td>
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<td>11:30 am</td>
<td>Lunch and Keynote Presentation, Dr. Allan Hamilton, Professor of Surgery, UA College of Medicine: “The Pirates of Creation: Navigating the High Seas in Search of Innovation”</td>
<td>South Ballroom</td>
<td>Keynote underwritten by Adobe</td>
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<td>1:00 pm</td>
<td>Morning Prize Drawing</td>
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<td>Networking Reception</td>
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<td>3:45 pm</td>
<td>Afternoon Prize Drawing</td>
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**Campus IT Trends / Big Data / IT Best Practices / Web and CMS**

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### Map
- **SUMC 3rd Level**: 1 level up from street level
- **Diamond Atrium**: Check-In
- **IT Best Practices**
- **Catalina Room**: Poster Session and Networking Reception
- **Tucson Room**: Welcome and Lunch/Keynote
- **North Ballroom**: Welcome and Lunch/Keynote
- **South Ballroom**: Welcome and Lunch/Keynote
- **Rincon Room**: Welcome and Lunch/Keynote
- **Santa Rita Room**: Welcome and Lunch/Keynote
- **Campus IT Trends and Strategies**: Welcome and Lunch/Keynote
- **Big Data**
- **Web Dev and CMS**