**TechExpo 2012 Abstracts**

**Authentication and authorization: Challenges, opportunities and solutions with Shibboleth and Grouper**  
*Teddy Salazar, OIT Identity Management*

Shibboleth authentication and authorization are about to become a lot more interesting. On one hand, integrating OpenID into Shibboleth will allow users without NetIDs and passwords to access Duke University web resources. Another approach will be to offer a high level of assurance using multi-factor authentication for access to sites that require more rigorous credentials. Grouper groups can help manage the authorization. We'll discuss and demonstrate how all of this works and how to put it together.

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**Cisco Unified Computing: Unify your network, computing and virtualization resources**  
*Shaun Jones, Cisco*

In this session, we'll discuss an end-to-end architecture approach to deliver the next-generation workspace and virtualized applications. Specific topics will include desktop virtualization and unified computing, and the best combination of these elements to maximize the user experience.

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**Developing content for screens and devices with Adobe tools**  
*Patrick Koster, Adobe*

Adobe’s Creative Suite and Production Premium Tools provide the latest features and essential workflows for creating and publishing digital content for the web, iOS, and Android ecosystem. These tools enable you to design once and repurpose effectively, whether it be for publishing rich content to the web or app stores, creating HTML5 applications or developing and publishing content created in Flash to all your users. This presentation will show you how to create smart-phone and iOS content to meet the demands of rapidly evolving communications media.

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**DukeCapture: A look ahead**  
*Todd Stabley, OIT Interactive Technology Services*

Every day at Duke, dozens of recordings are created via DukeCapture, our central classroom recording service. By July, Panopto will have fully replaced Lectopia as the engine by which recordings are captured and delivered at Duke. This session will look at the powerful new features Panopto offers, including mobile capture, which allows recording just about anywhere you can bring a laptop. We'll look at features such as note-taking, text search and NetID authentication (to limit access to individuals or groups, including course groups). We'll also discuss the new features provided by a recent system upgrade. Finally, we'll look at features on the horizon, including HD capture and captioning, and explain how to take advantage of DukeCapture.
Expanding the classroom: Video conferencing for real-time lecture interaction with off-campus students
Leisa Bolles; Glenn Setliff; Ramon Sotelo and Chuck Vacchiano, PhD, CRNA; Duke School of Nursing

For the past year, the School of Nursing has used a Polycom video teleconferencing system to give individual distance students the opportunity to participate in live, on-campus lectures from their home or office using a webcam and headphones. In the upcoming spring semester, an entire classroom from another institution will be joining these distance students for real-time interaction with on-campus lectures. Our unique environment provides the instructor with a “Brady Bunch” view of all participants and allows him or her not only to push relevant content to distant students, but also to fully manage the video feed for maximum effectiveness. Join us as we provide an introduction to the technical architecture and a live demo of our VTC environment.

Facilitating collaboration through activity streams, federated identity and automated groups
Mark McCahill and Liz Wendland, OIT

State-of-the-art community collaboration and course-management tool suites should allow customization and extension to encompass best-of-breed applications, and should enable Facebook-style social computing via community and personal activity streams. With OIT’s Toolkits application, users can easily create community groups to control access to a set of online tools selected by the community manager, including independent apps such as WordPress, Sakai, Sympa lists, XMPP/Jabber, Cisco Quad, WebFiles and Confluence wiki. To serve the broadest possible audience, Toolkits works with federated identities from InCommon and OpenID.

Failed to plan? Plan to fail! What to do on your project before you start coding
Masha Pascal, DHTS

There are limitless reasons why an IT project can fail and why a huge number of them actually do. It has been reported that 47 percent of software never goes into production. Even for projects that are delivered, the true success rate is very small, with 29 percent delivered but never used, and 3 percent changed before use. Looking back, project members will point to poorly defined requirements or lack of clarity about the project as the main reasons for failure. This presentation will focus on the need to better elicit, document and validate project requirements with users, and on approaches to these tasks that can improve the chances for success.

Getting started with desktop transformation
Paddy Harrington, Citrix

Our presentation will discuss the differences between traditional client computing and VDI and app delivery. We will discuss business cases for the move, areas for cost savings and definition of good users groups, and we’ll include a discussion of current projects on the health system and academic campuses.

Going private: Using Duke’s campus-wide private network
Jimmy Dorff, Physics; Dan Cantrell, Law; Tim Bell, DHTS; and Daniel Fredrick, OIT

In this panel discussion on moving resources to the campus wide 10.x private subnet, we’ll discuss why you want to move to a private network, how to make the move using Duke’s Cisco ASA systems and what problems we have seen arise from the move to a private network.
If you tweet it, they will come: Using social media to increase visibility and conversions
Paul Kaufman, Duke Global Health Institute

Traditional marketing is on the ropes. With the advent of social media, people are drawn to organizations that understand it is far better to have a discussion with your audience than to shout at them. Online services like Facebook and Twitter allow you to relate to your audience on a more personal level and, when used correctly, build trust and encourage repeated interactions. The best part is that social media can be a low-cost avenue to higher visibility and engagement. In this jargon-free session, we'll discuss successful strategies for wading into the social media pool, and then diving in deeply when you are ready. We will also share concrete techniques that you can use right away.

I'm ready for my flying car, now, Mr. DeMille: Identity and access management in the world of tomorrow
Rob Carter, OIT

In the 1950s, newspapers ran articles predicting that, by the the 21st century, everyone would either be wearing self-cleaning clothes and driving around in flying cars or living in caves hiding from the nuclear holocaust outside. In the same grand tradition, we'll hold a TechExpo “World of Tomorrow” discussion about the future of identity and access management. More a tour of the imagination than a map of known territory, we’ll focus on what’s just beyond the edge of predictability (or deliverability) today, and look at the flying cars and self-sanitizing kitchens (figuratively speaking) of the late 2010s. This session will likely be short on presentation and long on discussion, with lots of opportunities for audience participation.

IT architecture trends: Past, present and future
Rob Carter and Mark McCahill, OIT

Nearly five years ago, OIT formed the Technology Architecture Group (TAG) with the novel intent of focusing on technical architecture. The group has changed its membership over the years, but continues to do (what we hope is still) good work both within and (when possible) outside the organization. In this panel discussion, TAG current members and alumni will address the trends we've observed since the group’s inception, discuss the architectural principals the group developed as its first major effort (and consider whether they remain relevant), and share likely trends for the next five years.

IT security and privacy law 101
Brian Lowinger, Institutional Ethics & Compliance

Ever wonder why everyone is focusing on HIPAA, FERPA, FISMA, DCMA and NCITPA? What do all those acronyms mean? More importantly, how do they affect you and your work? In this presentation, you will be exposed to the basics about the IT security and privacy laws that impact so many elements of your work at Duke, and learn about important developments for these laws in 2012.

The mobile web
Ben Kimmel, Leon Malahias, Will McCreery and Barbara Puccio, Duke Web Services

A recent Nielsen report found that 62 percent of mobile users aged 25 to 34 own smart phones—a 22 percent increase in just the past year. A similar increase was reported among users aged 18 to 24, of whom 54 percent report owning smart phones. Clearly, the audience for mobile content is there (and growing), and the behavior is well-established. The question becomes how to best take advantage of that behavior, and provide added value by offering content that is enhanced by the vehicle of delivery. In this presentation, we’ll cover mobile web development from content structure, through graphic design, development and implementation, with a focus on the differences between creating a site for a mobile device and a site for a desktop or laptop.
The modern networked digital media communication platform
Ken Oots, Whitlock

This session will discuss how digital communications technology is deployed as a networked ecosystem. There will be an overview of how digital communication platforms have been deployed historically and the implications of such deployments, then an overview of what digital media is and how it is deployed in a modern integrated networked system. We'll discuss network considerations, as well as the benefits of building a scalable platform that can embody streaming, IPTV, signage and telepresence, enhancing communications for distributive learning, collaboration and health care.

The move to Maestro Care
Art Glasgow, Duke Medicine

Duke Medicine is proceeding with plans to implement an enterprise-wide, integrated, electronic health record (EHR) called Maestro Care. Maestro Care will improve patient outcomes and satisfaction, augment provider efficiency and enhance communication across the care continuum. By enabling a single health record for every patient, we intend to place the patient at the center of the care process and enable Duke providers to have full and instant access to the patient’s complete health picture. Maestro Care also holds the promise of empowering patients with their medical and financial information, while streamlining their care experience with tools like online check-in, bill payment and appointment scheduling.

Open access at Duke
Paolo Mangiafico, Office of the Provost, and Jim Tuttle, Duke Libraries Digital Repository Program

In March 2010, the Academic Council adopted a policy that allows Duke to provide free and open access, via the university’s DukeSpace digital repository, to all peer-reviewed scholarly articles published by Duke faculty. Since then, Duke Libraries, in collaboration with the Scholars@Duke project, have been working on a service model to make this possible. These efforts will help Duke meet its strategic goal of putting knowledge in the service of society by making scholarship produced by Duke authors available to a much broader audience. In this talk, Paolo Mangiafico and Jim Tuttle will provide background on the scholarly publishing ecosystem and the open access movement, and explain why and how open access is being implemented at Duke.

Project management: It’s about people, not Gantt charts
Glenn Willis, PMP Laboratory Information System, DUHS

Project management is more about the people and the organization than it is about using Microsoft Project. If the three most important things about real estate are location, location and location, then the three most important things in project management are communications, communications and communications. In this presentation, we’ll discuss the advantages and drawbacks of various communication media, why Microsoft Project is not a project plan and the need to focus on deliverables, rather than on tasks.

Putting usability to the test: Two methods to reduce the madness
Sean Aery, Thomas Crichlow, Emily Daly and Michael Peper, Perkins Library

Website usability testing, which involves observing typical users interacting with a site, is an effective way to evaluate and improve online interfaces. Employing two methods of testing, Perkins Library staff have learned how users engage—or choose not to engage—with our web interfaces to find information and complete research-related tasks. This presentation will detail two usability methods, guerilla testing and observational testing, and describe the staff time, costs, advance preparation and methods for analysis associated with each. After completing a number of tests, library staff have identified optimal methods for answering specific questions related to the Libraries’ web interfaces. In addition to describing each method of usability testing, we’ll discuss lessons learned in testing and highlight the improvements made to web interfaces as a result of these efforts.
Research data management: What, when, why and how
Joel Herndon, Perkins Library, and Paolo Mangiafico, Office of the Provost

As of January 2011, anyone submitting a grant proposal to the National Science Foundation must also submit a data management plan, explaining what they will do to manage, share and preserve research data. The National Institutes of Health, the National Endowment for the Humanities and other organizations have similar requirements, and Duke policy requires that research records (including digital data) be kept for at least five years. How should researchers respond? How can IT staff and research staff support these requirements? In this presentation, we’ll give an overview of research data management challenges and opportunities, and describe some approaches for meeting them. We’ll ask the audience to share how they do data management now, and we’ll talk about planning underway for new services to help with data management at Duke.

Safe data sharing: Navigating the cloud
Craig Barber, DHTS Information Security; Richard Biever, Duke University Information Security Office; Dan Cantrell, Law; and Mark DeLong, Duke Institute for Genome Sciences & Policy

Can email, Dropbox and Google Apps be used to safely share research data, financial information or patient test results? When is it OK to use Duke “cloud-based” services or external providers? Learn more about best practices and risks involved in storing and sharing data in the cloud at a panel discussion featuring IT security experts from across Duke University and Health System.

The Sakai transition: Where we’ve been, where we’re going
Laurie Harris, OIT, and Shawn Miller, CIT

Duke has chosen Sakai, an open-source collaboration and learning environment, as the successor to Blackboard for course and organizational site management, and in fall 2011 over 180 Duke faculty began using Sakai for some or all of their courses. Sakai is now open for all Duke faculty to use for spring 2012 courses, and for the broader Duke community (staff and students) to use for non-course sites. In this presentation, members of the Duke Sakai team will share reactions from faculty and students, discuss future plans and developments, and explain what Duke IT staff should know about the transition and about Sakai itself.

SharePoint in action at Duke
Susan Gerbeth-Jones, Nicholas School of the Environment; Forrest Smith, Trinity Technology Services; Debra Suggs, OIT Service Management Support; Shellene Walker, OIT Project Office; and Jeff Volkheimer, DHTS

Microsoft SharePoint is a powerful collaborative tool that is most effective when it solves a specific need. Please join us as we discuss the practical uses of SharePoint in the Duke organization. The session will start with a demonstration of collaborative editing, a component of SharePoint that can immediately benefit a department or project. We will then ask representatives across Duke to describe how they use SharePoint for everything from simple processes to custom solutions.

Social engineering: You are the weakest link!
Richard Biever and Artem Kazantzsev, Duke University IT Security Office

“Social engineering” has been called the art of manipulating people to do things they shouldn’t. Serious cyber attacks can start with users performing seemingly innocent actions—like opening an email attachment, clicking on a link or supplying a password. The development of social engineering automation tools make this kind of attack especially easy to carry out and doubly dangerous. In this presentation, we’ll discuss the types of attacks we see at Duke, give a sense of the volume of these attacks, and demonstrate how easy it is to automate them.
Standardization and implementation of EHR point-of-care mounting solutions  
*Christine Witte and Kent Hochgertle, GCX*

The presentation will explain how to standardize IT/IS solutions to maximize the use of time, resources and budget. We'll discuss how to organize an evaluation day to expose care providers and decision makers to multiple vendors, how to arrange the evaluation day to make the most of the time spent and how to determine what types of devices should be included. We'll also cover how to evaluate, order, receive and install point-of-care devices, how best to train staff in their use, and how to integrate existing technology effectively with new equipment.

TelePresence: Connecting people, technologies and organizations  
*Tom Freeland, OIT Interactive Technology Services, and Susan Gerbeth-Jones, Nicholas School of the Environment*

The Nicholas School has been using audio and video conferencing to collaborate with colleagues at the Marine Lab in Beaufort for several years. In this session, we'll focus on the partnership developing between the Nicholas School and OIT as we strive to take video conferencing to an even higher level and really do it right! We will share what we learned in implementing Cisco TelePresence and discuss how software-based and traditional video conferencing systems connect to our Cisco TelePresence rooms. Finally, we'll discuss the model for governance and support of the newest TelePresence room, a shared facility.

Use Outlook to keep you on time, on topic and ready to meet your day  
*Lisa Phillips, DHTS*

Outlook isn’t just an email program, a calendar, a phone book or a to-do list. It is an organizational tool to keep you on time, on topic and ready to meet your day. The best part is that you choose what works for you and what doesn’t. I love the 6 a.m. text with my schedule for the day. You may love the ability to color code your schedule according to project, or place, or whatever you can think of. Quick Steps can save you 30 minutes a day moving mail to folders, and Quick Parts can save you 15 minutes composing a canned email response to routine requests. This session will give you tips to make you more productive and better organized.

Virtualization of public computing  
*Evan Levine and Mark McGill, OIT Lab Engineering*

As the demand for access to software surpasses the need for public workstations, many computing labs are going virtual. Duke’s virtual computing lab (VCL) provides remote administrative access to a variety of operating systems running popular public computing software, all from the comfort of your own computer. We will briefly discuss the challenges faced today and how VCL is preparing for them, and we’ll perform a live demonstration of the service. Bring your laptop and follow along!

What’s new in Drupal 7  
*Will McCreery and Ryn Nasser, Duke Web Services*

Some 732,000 people in 228 countries speaking 181 languages power Drupal, the open-source content management platform. And Drupal, in turn, powers many websites at Duke, including duke.edu and today.duke.edu. Drupal 7, the latest version, is a powerful, easy-to-use system for building websites, blogs and social communities. In this presentation, we will highlight the new features of Drupal 7 and the differences between versions 6 and 7, and we'll discuss some key things you should consider before you start your next web project using Drupal.
You are the user: Applying the practice of user experience to the whole project

Ben Kimmel, Duke Web Services

We most often think of user experience as it pertains to a finished product. Just as important is the experience of those who create websites or applications. By applying the practice of user experience (UX) when creating a website, practitioners can improve their processes and deliver a better product. We’ll discuss how UX techniques can improve the clarity of information shared between designers and developers; allow that information to be transferred faster; enhance communication between a client and a project manager; highlight the ongoing needs of the client, so that calling a project “complete” really means leaving the client in a position to maintain and improve the site into the future; and remind us that we are all users in need of good experience.