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This annual report for FY09 celebrates OIT’s continuing efforts to support the University’s information technology needs. I would like to highlight here a few of the initiatives you will find described within the pages of this report.

Over the past year, we have continued to address the four areas that were identified as the highest priorities during the IT strategic planning process completed in FY07. These include: security and identity management, digital content management, collaboration, and IT support.

Early in the year, OIT began the implementation of an “identity management” software system (IDM) for logging in to core administrative systems. The new system, PUaccess, significantly improves the protection of personal identities and the University’s confidential data. It will initially be used to access the University’s human resource and student record systems and the student online course registration application, SCORE. When fully installed, the IDM software will dramatically change the way the University generates and tracks computer accounts and system permissions, significantly enhancing the security of our online information.

To help manage the tremendous growth in the use of digital information, this year OIT hired a digital content management architect. The architect is working with departments to develop a comprehensive set of tools to manage digital content in teaching, research, and scholarship. In addition, a new centrally-provided service, the Onbase Document Management System, allows departments to convert large quantities of paper documents to electronic versions that can be digitally stored, indexed, and retrieved.

Over the last several years, the University has recognized the need for increased data center power and space to support research, teaching, and administration. This year’s opening of the Lewis Library included a new high-performance computing center that will help address the needs of researchers. OIT is also collaborating with the Facilities Department on a new data center to be located at the Forrestal campus.

To improve our existing data center facilities, a new uninterruptible power supply (UPS) was installed at the 87 Prospect main data center. In addition, the New South machine room was expanded from 1,200 to 2,000 square feet and additional power and cooling installed to accommodate new servers. These servers take over service delivery in the event of a major failure at the main data center.

We in OIT are grateful for the opportunity to serve the University. We will continue to look for ways to enhance Princeton’s IT infrastructure and services and are thankful for the continued support of the students, faculty, and staff we serve.

Betty Leydon
Vice President for Information Technology
and Chief Information Officer
OIT Mission and Goals
The mission of OIT is to enable the effective use of information technology in support of the University. In pursuit of this mission, OIT’s goals are:

- Deliver information technology products and services that meet the needs of the University community and achieve the highest level of customer satisfaction;
- Support the use and development of information technology to enable innovation in teaching, learning, research, and scholarship;
- Provide leadership in planning for the effective use of technology;
- Provide a robust, reliable, and secure information technology infrastructure;
- Attract, develop, and retain quality information technology professionals;
- Enable communication and collaboration among information technology professionals and users of information technology at the University.

OIT Core Values
We strive to provide excellent service to the University community. We value professionalism, communication, respect, and integrity and we commit ourselves to:

**Excel**
We aim for excellence in all we do. We endeavor to exceed the expectations of our customers and colleagues. We recognize exceptional performance.

**Learn**
We are committed to the professional development and personal growth of our members. We encourage collaboration and take advantage of learning opportunities.

**Listen**
We value the opinions of all stakeholders and give fair consideration to their perspectives. We listen and learn from each other, because good ideas can come from anyone.

**Inform**
We disseminate accurate information in a timely manner. We promptly share decisions with those affected by them.

**Participate**
We strive for inclusive processes and to reach decisions by consensus when appropriate. We are responsible for staying involved and informed.

**Show respect**
We are honest, responsible, thoughtful, responsive, and well-mannered. We act with integrity.

**Enjoy**
We foster an environment where creativity, diverse ideas, humor, and fun are encouraged. We enjoy what we do and celebrate our successes.
## OIT by the Numbers

<table>
<thead>
<tr>
<th>Count</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,086,720,000,000</td>
<td>Hertz of processing power in the new Artemis high-performance computing cluster</td>
</tr>
<tr>
<td>700,000,000,000</td>
<td>Bytes of data in WebSpace owned by 5,000 users, departments, and groups</td>
</tr>
<tr>
<td>32,000,000,000</td>
<td>Bytes of RAM in Artemis</td>
</tr>
<tr>
<td>23,000,000,000,000</td>
<td>Bytes of data in SharePoint owned by 55 different departments and groups</td>
</tr>
<tr>
<td>70,000,000</td>
<td>Lunch ‘n Learn podcasts downloaded at the Apple iTunes store in just two years</td>
</tr>
<tr>
<td>50,000,000</td>
<td>Pages printed campus wide</td>
</tr>
<tr>
<td>8,700,000</td>
<td>Pages printed on Computing Cluster printers</td>
</tr>
<tr>
<td>2,750,000</td>
<td>Dollars worth of computer parts distributed from inventory</td>
</tr>
<tr>
<td>228,000</td>
<td>Feet of IT cabling installed at 701 Carnegie Center</td>
</tr>
<tr>
<td>163,251</td>
<td>Vouchers processed in the University Financials System</td>
</tr>
<tr>
<td>144,433</td>
<td>Address changes logged through the Interface Hub</td>
</tr>
<tr>
<td>58,741</td>
<td>Gifts to Princeton processed in Stripes</td>
</tr>
<tr>
<td>45,000</td>
<td>Dollars saved on a purchase of DLink network switches</td>
</tr>
<tr>
<td>32,965</td>
<td>Purchase orders processed in the University Financials System</td>
</tr>
<tr>
<td>13,056</td>
<td>W-2’s printed</td>
</tr>
<tr>
<td>11,944</td>
<td>Telephone calls placed to the University operators</td>
</tr>
<tr>
<td>10,000</td>
<td>Lumens of brightness in the display wall planned for the new Visualization Laboratory</td>
</tr>
<tr>
<td>5,000</td>
<td>Computer repair calls completed</td>
</tr>
<tr>
<td>4,500</td>
<td>Pounds of abated copper recycled</td>
</tr>
<tr>
<td>3,225</td>
<td>Undergraduates selected their rooms during Room Draw</td>
</tr>
<tr>
<td>2,990</td>
<td>Visitors to the New Media Center</td>
</tr>
<tr>
<td>2,760</td>
<td>Weekend support calls taken</td>
</tr>
<tr>
<td>2,018</td>
<td>Live online chats conducted to help campus users</td>
</tr>
<tr>
<td>1,500</td>
<td>Computers re-imaged or replaced with current Vista Service Packs</td>
</tr>
<tr>
<td>1,211</td>
<td>Research proposals submitted to COEUS</td>
</tr>
<tr>
<td>800</td>
<td>Vista migrations scheduled</td>
</tr>
<tr>
<td>500</td>
<td>Ethernet cables and 400 Cable TV cables distributed to students</td>
</tr>
<tr>
<td>450</td>
<td>Concurrent users first logged into the Community Audit Program to enroll in courses</td>
</tr>
<tr>
<td>300</td>
<td>Employees logged into the Employee Learning Center in its first 48 hours of operation</td>
</tr>
<tr>
<td>170</td>
<td>Loans of 10 Blackberries to members of the University community who are traveling</td>
</tr>
<tr>
<td>100</td>
<td>University programmers join the Princeton Application Developers (PAD) users group</td>
</tr>
<tr>
<td>86</td>
<td>Projects completed on the OIT Project Portfolio</td>
</tr>
<tr>
<td>83</td>
<td>Departments and offices served by 50 OIT Ambassadors</td>
</tr>
<tr>
<td>80</td>
<td>SCAD members serve 65 academic departments and programs</td>
</tr>
<tr>
<td>60</td>
<td>DCS members serve 40 administrative offices</td>
</tr>
<tr>
<td>50</td>
<td>Percent of University faculty and staff chose not to print their pay stubs</td>
</tr>
<tr>
<td>35</td>
<td>Podium computers are mounted in campus lecture halls and classrooms</td>
</tr>
<tr>
<td>23</td>
<td>Dual booting Macbook computers become part of the Classroom in a Box service</td>
</tr>
<tr>
<td>18</td>
<td>Customer engagements conducted by Technology Consulting Services in its first year</td>
</tr>
<tr>
<td>6</td>
<td>New television channels added to the TigerTV system</td>
</tr>
<tr>
<td>3</td>
<td>Princeton courses participate in the e-Reader Pilot</td>
</tr>
<tr>
<td>1</td>
<td>New building at 701 Carnegie to bring 160 OIT staff together for the first time</td>
</tr>
</tbody>
</table>
FY09 Timeline

July 2008

- OIT launches a major upgrade, version 9, to PeopleSoft Human Resources and Student Administration. In addition to improved and extended functionality, version 9 brings a number of significant benefits for the University, including a completely redesigned course management system that streamlines new course development.

- OIT creates Technology Consulting Services (TCS), a group dedicated to helping departments match IT solutions to business and academic needs. TCS is OIT’s “front door” when departments are not sure of the appropriate technology solutions and/or tools to apply. TCS provides personalized technology consulting, technology needs assessment and recommendations, and process improvement facilitation.

- OIT announces that SharePoint, a web-based collaborative tool for sharing information and documents, is now available to all departments. Microsoft SharePoint is an enterprise collaboration environment that can be used for website creation, document sharing, group discussions, blogging, calendaring, and wikis.

- OIT continues the process of upgrading the intra-building network infrastructure to provide 100Mbs service to campus desktop computers.

August 2008

- In an effort to enhance support for departmental Macintosh users, OIT places the Managed Macintosh Environment (MME) into production. MME has many of the same policies and benefits as DeSC for administrative computing. Standardized desktops deliver economies of scale associated with application development, software installation, computing support, system administration, and software licensing.

- OIT “helps the University break ground”, as 701 Carnegie Center construction begins. Two thirds of OIT and the Office of Finance and Treasury will relocate here in the Fall 2009.

- After collaborating with faculty, OIT re-evaluates the mission and services of the Language Resource Center (LRC). While it will continue to operate in the Andlinger Center and retain a strong focus on support for language instruction, the center will now also serve as a focal point for humanists, social scientists, and others interested in using digital materials and information technology in their teaching and scholarship. As a result, the center is renamed, the Humanities Resource Center (HRC).
**September 2008**

- A number of enhancements are made to Blackboard, the University’s course management system. A redesign of The Grade Center assists faculty in administering grades and interacting with students more effectively.

- Based on student feedback, OIT implements a new WebMail front-end, @Mail. The new front-end provides an improved graphical interface, enhanced sorting and searching, and improves the organization of messages into folders.

- Several of OIT’s Academic Services departments move to a new home in the Frank Gehry-designed Peter B. Lewis Science Library. The New Media Center, OIT’s Educational Technologies Center, including the Web Development Services, and the TIGRESS High Performance Computing Center - all relocate to the Lewis Science Library.

- OIT staff participate in the Frist Campus Center Open House and are available throughout Orientation Week to help students with Princeton’s information technology resources. OIT provides extended hours at the Solutions Center to accommodate the higher demand for computing assistance.

**October 2008**

- OIT increases all faculty, staff, and student central file server quotas from 1GB to 5GB. With the e-mail and storage quota upgrades last spring, this increase significantly expands access to fully backed-up central storage for documents and messages.

- To encourage students to work with documents electronically rather than rely on printing, OIT examines several reading technologies being developed by the IT industry. “eBook” readers have very high-resolution screens and other capabilities (annotation) that may encourage students to break their dependence upon hardcopy. Making such devices available (with the attendant electronic text) to students may go a long way toward reducing printing at Princeton and elsewhere.

- OIT conducts special clinics at Frist to help students upgrade their operating systems to Windows Vista or Apple OS X 10.5 (Leopard). The upgrades improve the security and the performance of student computers.

- OIT upgrades the University’s telephone infrastructure to deliver VoIP communications in new campus buildings.

**Irwin Tillman is a proud recipient of the annual CIO award recognizing his service to OIT and the University.**

**Irina Rivkin is a proud recipient of the annual CIO award recognizing her service to OIT and the University.**
### November 2008

- Working closely with the Office of the Registrar, OIT integrates SCORE with CollegeNet’s hosted course evaluation system. Before viewing their grades online, students must complete their course evaluations online.

![Laverna Albury attends the new Broadcast Center dedication with OIT staff.](image)

- The new Broadcast Center in the Lewis Science Library opens and is dedicated to the memory of Don Albury. The Broadcast Center provides video production for major events on campus including Opening Exercises and Commencement, Video Course Introductions, conferences and colloquia, as well as Public Lecture Series presentations.

- OIT announces the availability of WebSpace and DataSpace digital repository products as part of a strategic focus on digital repositories for the University.

- OIT continues to expand its outreach efforts by creating a comprehensive presence on Facebook. The Facebook entry provides a summary of upcoming technology lectures and events, easy links to Princeton podcasts and photographs, as well as an automatic feed to stories about faculty use of technology in teaching and research.

### December 2008

- OIT launches a new information security website, [http://www.princeton.edu/itsecurity](http://www.princeton.edu/itsecurity). The new website provides all IT security-related information in one place - descriptions of basic security concepts, information regarding what you should do if certain situations arise, easy access to all IT security-related policies and guidelines, links to all IT security-related forms and procedures, detailed technical information regarding tools and methods of properly securing computer workstations and servers, and descriptions of IT security-related services available to the University’s academic and administrative departments.

- The University launches the new Princeton channel on YouTube, the popular online video sharing website. The videos highlight Princeton’s academic research, its financial aid program, faculty and public lectures, as well as presentations produced by students.

- In response to the growing demand for departmental websites, OIT hires additional resources and expands Roxen website support. Working closely with the Office of Communications, OIT Web Development Services provides both website design and development services, as well as project management, to assist departments create new and/or redesigned websites.

![Matt Immordino, 701 Move Coordinator, stands in his future workspace to be.](image)

- OIT offers an end-of-year digest of IT’s Academic, a blog for and about Princeton University faculty use of technology for teaching and research. Highlights include the work of Professors Lee Silver, Joroen Tromp, Anatoly Spitkovsky, Jamie Rankin, and Sanjeev Arora and a virtual tour of the new Peter B. Lewis Library. Most of the stories include links to podcasts of speakers’ recent talks.
January 2009

- The Employee Learning Center, a new, feature-rich, learning management system, is implemented. This comprehensive system manages all employee training and professional development opportunities by various University training providers across campus including Athletics, Human Resources, Environmental Health and Safety, Development, Ombuds and the Library. The new system, hosted by Learn.com, provides University employees with “one-stop shopping” for all of their training needs.

- OIT launches a major security initiative, PUAccess, commonly described as a “bank-like” security interface. OIT develops a detailed plan to implement the Oracle identity management suite to deliver enhanced security for the University’s core administrative systems.

- OIT Lunch ‘n Learn seminars receive a gold award for Best Practices in Communications in the 2009 CASE II Accolades Awards. The Lunch ‘n Learn program receives the award for its fully integrated outreach, which has enhanced the established seminar series with blog posts, podcasts, RSS feeds, and a Facebook presence. These outreach efforts result in millions of “visits,” creating a world-wide collaborative environment.

- OIT Hardware Support begins the installation of IT wiring at 701 Carnegie Center.

February 2009

- The University releases a redesigned home page that uses multimedia technology to showcase the accomplishments of students, faculty and staff. The University’s online video presence also expands through the availability of UChannel, an online multimedia collection of public affairs lectures from Princeton and other institutions around the world. The UChannel site, sponsored by a consortium of universities led by Princeton’s Woodrow Wilson School of Public and International Affairs, features nearly 1,500 free audio and video recordings of public lectures on a variety of academic topics.

- As part of the University’s sustainability initiative, OIT and the Library partner to develop a “print-less” initiative to encourage faculty, staff, and students to print fewer copies and use double-sided printing when they do print, and to encourage faculty to accept student work in electronic form. The combined effort receives support from the Offices of Undergraduate Students, Sustainability, and Purchasing.

- With the addition of a Solution Architect and a System Administrator, both funded by the Priorities Committee, OIT announces expanded support for the Onbase Document Management System. Working with a number of academic departments and administrative offices, OIT assists in deploying a variety of Onbase solutions that convert from paper to electronic filing systems.
March 2009

- Princeton selects the Kindle electronic reader to pilot the use of e-readers in three classes during the Fall term. The project is sponsored by OIT, the Princeton University Library, and the High Meadows Foundation. A key objective of the pilot is to help determine if e-readers can reduce the amount of printing/paper used at the University, without adversely affecting classroom teaching and learning.

April 2009

- OIT announces the availability of the Central Authentication Service (CAS—a single sign-on authentication mechanism for web applications). Users will be able to enter “CAS-enabled” sites securely but without having to enter their user name and password repeatedly throughout the work day. The number of such applications continues to increase throughout the spring.

- In response to feedback received during the IT strategic planning process, OIT introduces the Business Technology Certificate Program—a new IT training curriculum directly relating business objectives and IT skill sets. OIT’s certificate program is designed around the effective application of technology through the completion of “on the job” assignments. Upon successful completion of the program, employees possess a recognizable and credible certificate that may be presented anywhere on campus to document their business technology proficiency.

- OIT completes the network infrastructure needed to support the expanded machine room at New South. They also implement the infrastructure needed to provide campus network, video, and telephone access to 701 Carnegie Center.

- OIT hosts the national Take Your Children To Work Day
## May 2009

- During Reunions weekend, OIT provides Internet connectivity to all visitors on campus using wireless networking services. For the first time, thousands of alumni use their mobile phones to access information about reunion events on the “Reunions Mobile” website.

- Working closely with DeSC, OIT launches a PC power management pilot project to reduce the University’s energy needs and carbon footprint. A PC power management vendor, 1E, Inc. is selected and their software is implemented to centrally hibernate, then wake, DeSC machines each night.

- OIT Hardware Support completes installation of a variety of digital display systems throughout campus at Career Services, Frist Campus Center, Health Services, MAE, ORFE, Physics, and Hamilton, Madison, and Wilcox Halls.

- An OIT change management working group is formed to address questions and issues related to preparing for the organization’s move to 701 Carnegie Center. Regular updates communicating the latest status of 701 Carnegie Center are provided through a 701 Carnegie project website. In May, town meetings are held to give OIT staff a “preview” of their new workspaces.

## June 2009

- McAfee anti-virus software replaces Symantec. The new software provides for a more stable computing infrastructure, enhanced security, and improved remote management of computer clients. In addition, the McAfee EndPoint disk encryption, which is part of the software suite, provides improved laptop security.

- The Department of Athletics implements their first online athletic membership system using e-commerce capabilities delivered and hosted through Learn.com. This phase now allows faculty, staff, students, and the public to purchase gym memberships and group classes via credit card and student accounts.

- OIT says “good bye” to Printing and Mailing Services, who now become part of University Services.

- The Student Computer Initiative (SCI) program offers computers that are specifically selected and priced for Princeton University students. The online SCI store, with its FY10 models, opens on June 9. The program offers several computer models and includes both Macintosh and Windows computers that are Princeton network-ready, have an extensive suite of software installed and configured, and have the guaranteed protection of a three-year warranty.

- OIT migrates from Blackboard to SharePoint for its organizational intranet site. The new site provides improved information sharing through automatic notifications of news/announcements, improved navigation, and useful links.
Who We Are

OIT consists of five major functional areas:

**Academic Services (AS)** is led by Serge Goldstein and supports faculty and student use of instructional technology. AS has six groups: Computational Science and Engineering Support; the Broadcast Center; Education and Outreach Services; Media Services; Digital Repositories Architect; Educational Technologies Center (which includes the Humanities Resource Center; Web Development Services, and the New Media Center).

**Administrative Information Systems (AIS)** is led by Colin Currie and provides implementation and support services for the University’s administrative systems. AIS has five groups: Custom Development - Data Warehousing and Integration; Packaged Solutions and Integration; AIS Collaborative Solutions; Package Adaptation and Customization; ERP Systems.

**Enterprise Information Services (EIS)** is led by Donna Tatro and maintains e-mail and directory services, and installs and monitors the performance and security of the server infrastructure and systems applications. EIS has five groups: Systems and Data Management Services; Collaboration Services Group; Enterprise Servers and Storage; Security and Data Protection; Security Officer.

**Finance, Administration, and Planning (FAP)** is led by Nancy Costa and is responsible for budgetary and financial matters, staff relations, recognition and development, project planning, process improvement, and supporting effective administrative systems processes through training, documentation and call support. FAP has four groups: Project Office; Budget and Finance; IT Training, Documentation and Support; Human Resources and Administration (which includes Printing and Mailing and Technology Consulting Services).

**Support Services (SS)** is led by Steven Sather and provides front-line IT support for all members of the University community. SS has six groups: Integrated Technology Services (which includes Communications Services, Software Sales, and the Copy Center); Desktop Support (including Hardware and Software Support); Networking and Telecommunications; Distributed Computing Support; IT Policy; Customer Services (including the Support and Operations Center).

**OIT Achievement Award Recipients (2008-09)**

For contributing significantly to their departments and OIT in one or more of the following areas:

- Creativity and Innovation
- Customer Service and Outreach
- Teamwork and Collaboration
- Technical Excellence
- Demonstrating OIT Core Values

The following members of OIT received the OIT Achievement Award:

- Darcy Cotton
- Madan Dorairaj
- Tom Francais
- Hajar Niroomnad
- Alberta Noon
- Winnie Siemon
- Harris Otubu
- Chris Stewart

**OIT CIO Award Recipients (2008-09)**

For outstanding service to OIT and Princeton University

- Irwin Tillman
- Irina Rivkin

**The President’s Achievement Award (PAA)**

Rita Saltz was the recipient of the President’s Achievement Award (PAA), which recognizes outstanding members of the support and administrative staffs for their exceptional dedication, extraordinary efforts that consistently go above and beyond normal job requirements, and exemplary service to their departments and the University community.
Refer to Appendix A: OIT Organization Charts, beginning on page 51, for a complete set of all OIT organization charts.
What We Do

The following is a list of services OIT provides to the University community

**Computing at Princeton**
- Guidelines for IT Resource Use
- Policy Interpretation & Reporting Violations
- Rights, Rules & Responsibilities

**Getting Help**
- Departmental Computing Support for Administrative Departments (DCS)
- OIT Ambassadors
- OIT Knowledgebase
- OIT Solutions Center
- OIT Support & Operations Center
- Outage Notification
- Princeton Applications Developers Group (PAD)
- Residential Computing Consultants
- Support for Computing in Academic Departments (SCAD)

**Getting Training**
- Administrative Systems
- Blackboard Course Management System
- Classroom Facilities
- Desktop Computing Applications
- Digital Media
- In-office Technology Tutorials
- Lunch ‘n Learn Seminar Series & Podcasts
- New Media Center
- OIT Help Desk Self-help Guides
- OIT Help Desk Technology Learning Initiative
- Online Lynda Tutorials
- Productive Scholar Learning Series
- Programming
- Specialized Training for Course Needs
- STAT In-office Technology Tutorials
- Text-encoding

**Getting Started**
- Establishing Your NetID / Security Credentials
- Online Campus Directory
- Purchasing Hardware/Software
  - Desktop Systems Council (DeSC)
  - Faculty Computer Program (FCP)
  - Managed Macintosh Environment (MME)
  - Student Computing Initiative (SCI)
  - Home Computers
  - Software Sales
  - Media Sales
  - Modems & Memory Sales
  - Printer Toner Sales
- Updating Your Personal Information - MYINFO

**Setting-up Your Computer**
- On Campus
  - In Your Office
  - In Your Dorm - Dormnet
  - Portable Computing - Mobile IP
  - Public Clusters
  - Wireless Computing
- Off Campus
  - Virtual Private Network
  - Wireless Broadband Access Cards
- Database Resources
- Fax Services
- File Backup
- File Sharing
- Global Internet Access
- Host Master Database Registration
- Linux Resources
- Macintosh Resources
- Print Services
- Server Hosting / Virtualization
- Site Licensed Software & Download Sources
- Unix Resources
- Website Hosting
- Windows Resources

**Maintaining Your Computer**
- Hardware Repair
- File Recovery
- Increasing Your Disk Quotas
- Software Installation and Upgrades

**Information Security & Privacy**
- Data Encryption
- Hard Drive / CD / DVD / Floppy Drive Data Destruction
- IT Security Advisory / Checkup Services
- Notification and Remediation of Security Compromise
- Setting / Resetting Security Credentials
- Spam Filtering
- Virus Disinfection / Protection

**Consulting**
- Custom Web Application Development for Departments
- Design Services for Teaching with Technology
- Project Management & Planning
- Technology Consulting Services
- Vendor Relations / Contract Negotiation
Communication & Collaboration Tools
- Audio / Visual Equipment Rental
- Audio / Visual Technician Services
- Blackberry Loaner Program
- Blog Server
- Broadcast Center
- Broadband Wireless Data Card Loaner Program
- Cable TV – TigerTV
- Cell Towers for Major Carriers
- Classroom Audio / Visual Equipment
- Creating Databases on the Web
- Creating Web Applications (LAMP/.Net)
- Desktop Conferencing “WebEx”
- Digital Signage
- Digital Suitcase
- Documentation
  - Application User Manuals
  - “Back to School” Publications
  - Nevada Learning Quick Reference Cards
  - “Quick Start” Guides for Faculty & Staff
- Event Scheduling with Resource25
- Event Simulcast
- Events Calendar
- Google Search Appliance
- “IT’s Academic” Blog
- On-demand Printing of Faculty and Staff Directory
- Online Technology Updates
- PDF File Creation
- Podcasting – Princeton YouTube / iTunes
- Roxen Website Design & Development
- SharePoint Collaborative Workspaces
- Using E-mail
  - Course E-mail Lists
  - Electronic Mailing Lists
  - Enhanced E-mail - MS Exchange
  - Standard E-mail - MS Outlook
  - WebMail
- Using Telephone & Voice Mail
  - Mobile Phones When Traveling
  - Office Phones
  - Telephone Conferencing
  - University Telephone Operators
  - Voice Mail
- Video Conferencing
- Web Appointment Scheduling - WAS
- Web Broadcast
- WebSpace File Sharing

Using Administrative Systems
- Academic / Events / Meetings / Scheduling (R25)
- Alumni Advancement
- Alumni Schools Committee Interview Site
- Assets & Equities
- Academic Advisement - Degree Audit
- Bridge Year Program
- Campus Community
- Campus / Princeton Receivables
- Campus Card Transaction System
- Conflict of Interest – Faculty and Research/Technical Library Staff
- Course Approval / Update Process
- Course Enrollment - SCORE
- Data Mail / Information Warehouse
- Departmental Billing / Charges
- Financials (PO / AP / GL / Budget)
- Graduate Admission / Re-admission
- Graduate Financial Support
- Grants Management
- Housing
- Human Resources, Benefits, HR Help Desk
- Labor Accounting
- Matriculation Package
- NCAA Eligibility
- OnBase Document Imaging & Management, eForms, and Workflow Automation
- Parking
- Payroll
- SEVIS / Visa Processing
- Student Employment
- Student Records
- Telephone Management
- Ticketing
- Tigercard Administration & Management System
- Time Collection
- Undergraduate Admission
- Undergraduate Financial Aid
What We Do

**Using Instructional Technology**
- Film, Video & Digital Media
  - Audio / Video Recording of Classroom Sessions
  - CD & DVD Duplication, Printing, Production, Editing & Authoring
  - Color Printing
  - Creation of 35mm Slides from Digital Images
  - Digital Camera Loaner Program
  - Digital Media Storage, Digitizing, Cataloguing & Online Display
  - Digital Video Production, Editing & Authoring
  - High Quality Scanning & Printing - from Letter to Tabloid Size
  - Video Course Introductions
  - Video on Demand for Courses
  - Videotaping for Academic Events
  - Videotaping Select Courses

**Language Learning**
- Foreign Language Audio, Video & Cable TV
- Language Learning Software
- Language Learning Materials Demonstration
- Language Resource Center Video Collection & Reserves
- Video Viewing Facilities

**Teaching and Classroom Support**
- Almagest Multimedia Lecture Building Software
- Blackboard Course Management System
- E-Reader Pilot
- Student Oracle Database Facility

**Educational Technologies & Research Computing**
- Electronic Text Creation, Encoding & Collection
- Geographic Information Systems Support & Development
- Grant Writing Assistance for IT Projects
- High Performance Computing
- High Speed Networking - Internet2
- Humanities Computing Project Support
- Humanities Custom Application Development
- Princeton Software Repository
- Research & Quantitative Project Support
- Scientific and Engineering Programming Support

Video on Demand for Courses
What We Accomplished - FY09 Goals Met

FY09 goal: Continue the expansion of Princeton’s high-performance computing (HPC) infrastructure to meet the needs of the research community

During FY09, we continued to strengthen the TIGRESS HPC facility, working closely with faculty in the use and support of the facility. Specific accomplishments included:

- Installed and implemented the Hierarchical Storage Management system (1 petabyte of storage) in the Lewis Library machine room;
- Installed and implemented the new Beowulf cluster for Professor Tromp, in early 2009, as a result of improvements to power and cooling in current OIT facilities;
- Prepared for the arrival of an additional Beowulf cluster in late spring/early summer for a faculty member currently being recruited;
- Hired a new systems administrator, storage specialist, and visualization specialist and ensured they function as productive members of the Computational Science and Engineering Support (CSES) group.

FY09 goal: Complete major networking infrastructure upgrades and develop a roadmap for future growth and enhancements

Networking and Telecommunications

- Continued to improve campus coverage through the installation of additional cellular telephone antennas (AT&T, Sprint, T-Mobile) on campus;
- Expanded the current in-house cellular telephone distribution system to support additional locations;
- Upgraded the existing telephone infrastructure to support VoIP communications in support of new campus buildings;
- Completed the transition to the new Telephone Management System;
- Continued the process of upgrading the intra-building network infrastructure to provide 100Mbs service to the desktop;
- Provisioned high-speed network access to ESnet in support of research in the Physics Department;
- Installed leased fiber cabling to 693 and 755 Alexander to increase network bandwidth and to enhance reliability;
- Installed high-speed (10Gbs) infrastructure to support the new Lewis Library and to meet future campus bandwidth needs in other campus locations;
- Implemented the infrastructure needed to provide campus network, video, and telephone access to new OIT building at 701 Carnegie Boulevard;
- Provisioned network and telecom services to support 693 Alexander;
- Completed the network infrastructure work needed to support the expanded machine room at New South;
- Developed a new approach to building an alternate network core and infrastructure located in the expanded New South machine room.

Desktop Support

- Continued to support the deployment of University applications such as prox cards, point-of-sales, security cameras, LaundryView, Digital Signage, Fire Alarms, and others;
- Migrated the entire campus (departmental, student, and personal/staff machines) from Symantec Antivirus to McAfee VirusScan (more than 9,500 clients) using both automated and manual procedures;
- Implemented McAfee Endpoint Encryption service for University laptops. In use on 200 DeSC and non-DeSC laptops in various departments, the service is also provided as needed for departmental SCAD/DCS staff;
- Migrated from Microsoft SMS 2003 to SCCM 2007 SP1 (affected more than 5,000 campus clients) using contracted assistance from Dell;
- Researched and piloted DeSC power management utilizing software from IE and Intel Vpro technology;
What We Accomplished - FY09 Goals Met

- DeSC Vista migration assistance for departments (in tandem with support provided by Hardware Support);
- Transitioned remaining Telecommunications-related DBToolbox resources to other resources;
- Provided dedicated desktop support for the departments within University Services;
- Remained current with new Dell, Apple iPhone, and Blackberry technologies;
- Assisted Help Desk and ESS with the move of all HP printers from NTPRINTSERVER to PRINTH—to use the HP Universal print driver;
- Trained newly hired SCAD/DCS members;
- Worked with the Help Desk, EIS, ESS, and HWS to transition OPM and the Hardware Support billing system to a new server. The Hardware Support system was also transitioned from Oracle backend to clustered SQL environment;
- Continued to assist with migrating users from SunOne Imap service to Exchange;
- Continued to develop and maintain the MME environment for managed Macs using Jamf Casper 6.0.

Building Renovation/New Construction Support

Hardware Support again assisted the Facilities Planning Office during the construction and renovation of various campus buildings. This support typically involves removal of old data wiring, network equipment, or PC clusters, and eventually reinstalling everything. In the case of new construction, Hardware Support installs all the IT cabling systems and services. During FY09, projects included:

- ORFE Building;
- Wilcox Hall: Completed phase 2 & 3 in the summer/fall of 2008. Began phase 4 in the spring of 2009, which continued throughout the summer;
- Lewis Library;
- Butler Dorm: Moved fiber hub site into new building in summer 08. Completed wiring project throughout FY09. Only minor details remain;
- Chemistry Building: Data cable installation is in progress;
- 58 Prospect (Carl Fields Center): Data cable installation is in progress;
- Whig Hall: Data cable installation is in progress;
- Campus Club: Rerouted fiber/telephone link around construction site. Installation of wiring and wireless systems is in progress;
- Springdale Golf Club;
- Jadwin Hall 4th floor renovation;
- 693 Alexander.

OIT Building Wiring Upgrade Projects

We are completing the project to rewire University buildings that are not scheduled for renovation. We are installing a parallel cabling system next to the old wiring. After the new infrastructure is in place, technicians go room to room, cut out the old wiring and install the new. The list of projects completed during FY09 included:

- MacMillan – Completed wiring in summer ’09
- Wu Hall – Replaced old cabling in summer ’09

FY09 goal: Continue to enhance Princeton’s data centers at 87 Prospect and New South and plan for a new data center facility

During FY09, OIT continued to work with the Office of the Vice President for Facilities to plan a new data center at the Forrestal campus. A parallel effort was undertaken to maximize the use of the existing data center rooms at 87 Prospect and New South. With the addition of the data center room at the Lewis Science Library, OIT now provides daily operational support for three data centers on campus.
FY09 goal: Maintain and enhance a secure campus computing environment

During FY09, OIT rolled out a new security website and launched IT security awareness presentations for University departments and groups. OIT staff implemented a pilot project for laptop encryption. Through FY09, staff worked toward a July 27 “go-live” of a new “bank-like” authentication system for accessing the University’s critical business applications. Over time, this stronger authentication system will protect additional applications. OIT also implemented a new monitoring system to scan for “holes” and other vulnerabilities in the server infrastructure.

FY09 goal: Fully staff the Roxen web development group, and stabilize the Roxen website backlog

In FY08, OIT added significant resources to the support of our Roxen Content Management System, hiring Mary Albert to supervise a new Web Development Services group, and additional staff to reduce the backlog of Roxen projects and improve our ability to assist departments in developing websites in a timely manner.

During FY09, we hired and integrated new staff into the Web Development group and stabilized the backlog of Roxen website projects at a manageable level, and ensured that requests for department websites were being handled in a timely manner.

FY09 goal: Continue to deliver academic information technology systems that meet the needs of the academic community

During the year, Academic Services achieved the following:

- Relocated the Educational Technologies Center (New Media Center, Web Development Services, Instructional Technology Group, Blackboard support) and the Computational Services and Engineering Support group to Lewis Library;
- Opened the new Broadcast Center, a high-definition video production studio in Lewis Library, to assist University professors with live interviews conducted for major television and radio networks and support the recording of events such as the Public Lectures Series, Opening Exercises, Commencement, classroom lectures, podcasts, and other multimedia content;
- Expanded the scope of the Language Resource Center (LRC) by transforming it into a more generalized Humanities Resource Center (HRC) that will provide support for all aspects of digital media and web page development for the Humanities;
- Successfully launched the WebSpace and DataSpace digital repository products and completed a strategic plan for digital repositories for Princeton University.

FY09 goal: Continue to deliver administrative information technology systems that meet the needs of the University

Campus Receivables

Campus Receivables is a large, complex custom system written more than 10 years ago to manage the University’s loans and collections operations. AIS is in the process of updating or replacing the technology.

During FY09, we worked to update and to begin the rewrite of the University’s primary loans and receivables system, Campus Receivables. This multi-year project is expected to update significant portions of the application, making it more supportable, flexible, and secure. Starting with a SAGIT request and subsequent funding, AIS is engaged in a multi-faceted, multi-year project to update this set of applications. An outside software development firm, RedMane, has been retained to update significant portions of the existing application code in order to fix defects and make it more supportable, flexible, and secure. In FY09, we achieved the important goals of updating the application frameworks and database, and making the application compatible with Vista and Word2007. We also successfully migrated Rents collections from an external shadow system to be integrated with Princeton Receivables.

The project to update fully and to modernize Campus Receivables is expected to run for an additional three years.

OnBase

We planned to shift support for the OnBase software suite from the Treasurer’s office to OIT, significantly expanding campus-wide support by adding functionality, growing the technical foundation, and upgrading the software to a campus-wide license.
The Treasurer's Office has run OnBase Document Management software from Hyland Corporation since 2001. During that time, OnBase has become a critical tool for the processing of a variety of paper forms for numerous University departments, notably the Library, ORPA, and Development. Other offices have expressed interest in using OnBase to help automate and manage a variety of critical business functions, including Human Resources, Undergraduate Admissions, Facilities, the Office of the Registrar, the Office of the Provost, the Office of the Dean of Faculty, and the Woodrow Wilson School.

In FY08, SAGIT funded a request to transition support of OnBase from the Treasurer's Office to OIT and to further enhance the OnBase suite by acquiring a comprehensive and unlimited campus license for document imaging, document management, electronic forms, and workflow automation. During FY09 all of those goals were achieved.

In addition to the SAGIT request, OIT also received funding from the Priorities Committee for two Onbase positions: a Solution Architect, and a System Administrator. Both of these positions have been filled and these individuals are working with representatives of a number of University departments to implement and deploy OnBase solutions.

**Oracle Identity Management**

In FY09, we planned to enhance the University's identity management security and create standardization by implementing the Oracle Identity Management (IdM) Suite in partnership with Oracle Consulting.

OIT reinitiated the project to implement several Oracle IdM tools, most notably Oracle Identity Manager (OIM), Oracle Access Manager (OAM), and Oracle Adaptive Access Manager (OAAM).

(OIM) is an intelligent “account provisioning” system that will sit between the University's PeopleSoft Campus Community system and our LDAP and Active Directory. When a change is made to a Campus Community record (e.g., admit, graduation, new hire, position change, retirement, etc.), OIM will interpret the data change and make appropriate adjustments to the LDAP and Active Directory records. OAM then uses the data in the directories to grant access intelligently to the University's business systems. It also enables “single sign-on” by tracking who has entered what systems and permitting users to gain access to other applications as their security profile and level of authentication allows. OAAM adds a very powerful and flexible user front-end to the system login. Commonly described as a “bank-like” interface, OAAM enables OIT to control and manage system access while creating a comfortable and familiar login experience for our users.

The combination of OAM and OAAM went live in July 2009. OIM is expected to go live during FY10.

**Housing**

During FY09, we continued efforts to automate housing functions and to improve online capabilities, focusing on faculty and staff housing functionality for FY09.

Our ongoing efforts to automate housing functions have dramatically improved their online capabilities. These efforts will continue for the next several years. During FY09, AIS concentrated on the development, testing, and deployment of the faculty and staff housing application. This functionality was previously processed in a collection of external shadow systems. In the last year, AIS staff successfully enhanced and rewrote this functionality within the core central office application. As a result, this information is centrally processed, easily accessible, web-based, and fully standardized. It has resulted in great improvements in the way that Faculty and Staff apply for and receive housing. It also provides far greater flexibility as the University adjusts its faculty and staff housing options in FY10.

**SCORE**

During FY09, we integrated the University’s PeopleSoft-based SCORE system and the externally-hosted CollegeNet system for course evaluations. Students will thereby be able to complete their course evaluations online, and then access their grades for those courses through the SCORE system.

In FY09, the Registrar’s Office selected an application by CollegeNet to enable students to complete their course evaluations online, and then gain access to their grades for those courses through the SCORE system. We successfully implemented this functionality in the fall of 2008. Students are now able to move from PeopleSoft to CollegeNet (without a second authentication), enter their course evaluation information into CollegeNet, and then return to PeopleSoft to view their grades. Students can see their grades in PeopleSoft only if they completed their course evaluations for all the courses they took during the semester.

As part of this rollout, CollegeNet’s hosted application was integrated with the University's PeopleSoft-based SCORE system. This new, integrated solution has greatly simplified the process for students, instructors, and the Office of the Registrar.
FY09 goal: Attract, develop, and retain quality information technology professionals

The most important initiative during FY09 was the preparation for the organization's move to 701 Carnegie Center. We formed a change management working group to address questions and issues as they arose. Regular updates, communicating the latest status of 701 Carnegie Center, were provided through a 701 Carnegie project website. In May, town meetings were held at 693 Alexander Street to give OIT staff a “preview” of their new workspaces.

During FY09, OIT had 14 new hires, 24 in-band adjustments, 20 position reclassifications, four promotions, three OIT transfers, one University transfer, one retirement, and six departures.

Eight OIT employees were peer-nominated and received achievement awards for their significant contributions to the success of the OIT organization. 47 OIT employees received recognition rewards for the efforts on key projects. Irina Rivkin and Irwin Tillman received the annual OIT CIO award.

Twelve OIT employees received certification in the Human Resource Management Development Program and eleven additional employees are in the process of achieving certification.

Diversity Initiatives

During the year, we continued to provide a variety of diversity initiatives to build community throughout the organization.

• IT’s Us Newsletter:
  OIT staff continue to author and disseminate quarterly issues of our internal newsletter, IT’s Us. Many staff members have contributed news and photos to this popular online publication.

• The OIT Buddy Program:
  OIT strives to help new employees feel welcome within the organization. Current employees voluntarily pair with a new employee, taking them to lunch, going on an Orange Key tour, or simply answering questions about life on and off campus. In addition, new staff members receive an OIT orientation session, a “welcome” packet that provides useful information about the organization, and they meet with the CIO.

• Storytelling Workshops:
  OIT continues to offer workshops that use storytelling and other creative approaches to engage participants in a dialogue about a number of relevant topics such as diversity and change, and in the process help build a sense of community among participants. During the year, the EDUCAUSE Center for Applied Research (ECAR) published a bulletin about these workshops: www.educause.edu/Resources/ExploringDiversityandCreatingI/172997.

• Storytelling:
  Exploring Diversity/Building Community, (facilitated by Hetty Baiz and Susan Danoff ’75) helped new staff to get to know their co-workers better. In the process they discovered and learned to appreciate the commonalities and differences within our diverse workforce.

• Building Community in Times of Transition:
  Facilitated by Hetty Baiz, provided staff with a forum for exploring the nature of change as it relates to the workplace, particularly the move to our new building at 701 Carnegie Center and our changing economic times. These workshops highlighted the various affects of a large organizational relocation and how staff can prepare for them.

• OIT Book Club:
  Coordinated by Alla Ryklin, the OIT book club meets several times a year to encourage inquiry and sharing in an intimate and relaxed setting. The reading list consists of works highlighting diversity and multi-cultural themes. Sessions have been enriched by faculty led discussions and tours of related exhibits at the Princeton Art Museum. Books included Dreams of My Father by Barack Obama, The Barbarians Are Coming by David Wong Louie, and Colored People by Henry Louis Gates.

• Birds of a Feather:
  Coordinated by Emily Jeng, OIT colleagues interested in Java development participated in special “birds of a feather” sessions organized and led by their peers. Topics discussed included Java Server Faces, Java Caching System, E-Reader Pilot, and Image Replacement. The group also started a SharePoint blog/document library site dedicated to OIT Web/Java developers to facilitate further the sharing of ideas.
What We Accomplished - FY09 Goals Met

- **OIT Bike Rides, Tennis/Squash, and Skiing:**
  Coordinated by Robert Hebditch, OIT colleagues and their friends participated in several OIT bike rides around campus and its beautiful environs, including a bike ride to 701 Carnegie Center to check out the progress of building construction.

- In addition to biking, several OIT colleagues play tennis and squash weekly during lunch. Also, a new group of OIT skiers began day trips to local ski areas.

- **Science Fiction Movie Get-Together (SFMGT):**
  Coordinated by Alex Willman, OIT colleagues and their friends attended science fiction and fantasy films, including: The Dark Knight, The Day The Earth Stood Still, The Watchmen, and Star Trek.

Hetty Baiz, who serves as the OIT Diversity Advocate, was invited to join the Provost’s Diversity Council. The Council was created to facilitate communication and coordination across the multiple offices on campus that are leading diversity efforts, and to establish a forum for considering diversity-related concerns and initiatives.
What We Are Planning - FY10 Goals Planned

FY10 goal: Continue the expansion of Princeton’s high-performance computing infrastructure to meet the needs of the research community

- Install and make operational the Sesame Beowulf cluster.
- Princeton’s new Director of PICSciE, Jeroen Tromp, has led the effort to purchase a Dell Nehalem processor cluster containing 3584 cores and 11 TB of RAM. This system will be installed and operated out of the Lewis Science Library.
- The Lewis Science Library has a large space dedicated to a visualization facility. In this space, we plan to install a high-resolution SONY video projector connected to computers that will allow faculty to generate visual renderings of their research.

FY10 goal: Complete major networking infrastructure upgrades and develop a roadmap for future growth and enhancements

Networking and Telecommunications

- Investigate ways to increase the value of the campus communication infrastructures and associated applications in addressing the needs of the campus and reducing costs;
- Work closely with departments such as Dining Services, Facilities, and Public Safety on the deployment of new network-based applications and telecommunication services;
- Develop, test, and improve the Emergency Readiness plans and facilities of the campus telecommunication and network infrastructures;
- Promote, through campus community education, wider use of available telecommunication services such as Automatic Call Distribution (ACD), video and voice conference services, voicemail to e-mail (EVM), and telephone features;
- Implement increased security measures for both the network infrastructure and network servers;
- Continue the process of improving cellular telephone access on campus and the integration of business and personal cellular telephones into a campus communication plan;
- Pilot the latest wireless network technologies including 802.11n and WPA2 and evaluate the deployment of additional wireless networking infrastructure to support specific locations such as outdoor areas;
- Complete the process of upgrading building-to-core links to 1Gbs, replacing obsolete closet network electronics, support additional 10Gbs links, and complete the upgrading of academic and administrative desktops to 100Mbs;
- Pilot, evaluate, and integrate new voice technologies such as Session Initiated Protocol (SIP) and Voice over Internet Protocol (VoIP).

Desktop Computing Support

- Complete 701 Carnegie Center and Chemistry building wiring projects, including installation of new technologies such as VoIP and 802.11n wireless computer network services and assist with OIT/Treasurer’s office staff relocation/occupation in fall 2009;
- Support New South renovation and 87 Prospect Ave. re-occupation as required after Treasurer’s office and OIT move to 701 Carnegie in fall 2009;
- Expand 802.11b/g wireless system to additional outdoor locations as we gear up for longer term campus-wide transition to 802.11n service;
- Assist other OIT groups and SCAD/DCS with the completion of the DeSC Vista migration project.

FY10 goal: Continue to enhance Princeton’s data centers at 87 Prospect and New South and plan for a new data center facility

During FY10, EIS will continue to maximize the use of the data center rooms in 87 Prospect and New South as we await a new data center, and will work with the Office of the Vice President for Facilities to plan new options for meeting the University’s data center needs.
FY10 goal: Maintain and enhance a secure campus computing environment

In FY10, we plan:

• To reduce the risk of a data breach in cases where laptops are lost or stolen by testing and evaluating tools such as a remote data wipe tool for laptops;
• To expand the number of applications protected by a “bank-like” authentication system;
• To improve our ability to ensure that each member of the University community has appropriate access to University systems by deploying a state-of-the-art identity management system;
• To enhance our ability to detect potential system attacks by adding additional reporting capabilities to our recently deployed log collection, correlation, and analysis system;
• To reduce problem determination time by improving monitoring and diagnostic procedures;
• To rework the disaster recovery/emergency readiness plan to reflect the new key role played by the New South data center room;
• To implement additional security measures for the network infrastructure and servers.

FY10 goal: Produce strategic and tactical plans for emerging centralized services

OIT is moving forward with the provisioning of centralized services in a number of key areas, including digital repositories and authentication. This is being done in an incremental fashion, and we need to produce tactical plans for these services that will ensure that they meet customer needs and are implemented in a coordinated and effective manner.

FY10 goal: Continue to deliver academic information technology systems that meet the needs of the academic community

In FY10, we will be installing the latest release of Blackboard and preparing to upgrade the campus from our current release 8 to the latest release 9. We are targeting July, 2010 as the “go-live” date for Blackboard 9. The new release has a substantially revised user interface, so we will need to make sure that faculty, staff, and students are properly prepared for this change.

As mandated by the HEA, OIT is working with Labyrinth and the Library to develop an application that will allow lists of all required and recommended course readings (books) to be made available on Princeton’s course list site(s). This list must include retail price information and ISBN number (if available). The application needs to be available for use by faculty and staff in specifying readings for Fall, 2010 courses.

Princeton is one of six schools involved in a pilot project to test out the use of Amazon’s Kindle DX eReader in college courses. The pilot will run through the Fall 2009 semester. Specific objectives include:

• Finalize the selection of the courses that will participate in the pilot.
• Prepare materials for the courses involved in the pilot and upload them to the Kindle devices.
• Develop policy to adjudicate student participation.
• Carry out the pilot.
• Carry out an assessment of the pilot and prepare a report on lessons learned regarding the effectiveness of the Kindle DX (and eReaders in general) in an academic setting.
• Present pilot results to University, Amazon, and at EDUCAUSE.

Princeton has been making public lectures and events available online since 1998 through its Webmedia site at www.princeton.edu/webmedia. In the past few years, we have added podcasts to our streaming video as a means of distribution, and this offering has been enormously popular. We plan to continue to enhance our offerings in this area. Specific objectives include:

• Set up an iTunes U site to make podcasts more accessible.
• Create vodcasts of topics covered in our Lunch ‘n Learn series.
• Enhance the quality of recordings through the use of Echo/360 recording system.
What We Are Planning - FY10 Goals Planned

FY10 goal: Continue to deliver administrative information technology systems that meet the needs of the University

In FY10, AIS plans:

• To create new online facilities for alumni and existing students to request transcripts. Transcript requests are currently handled by two separate systems in an inconsistent and unsupported way. The new applications will be developed and supported centrally by AIS;

• To create a new University event calendaring system using Resource25. Departmental events will be entered into a standard online form that will automatically update the University website calendar with up-to-date information. This will replace numerous one-off calendars with a consistent mechanism for creating and communicating events;

• To rewrite Assets and Equities (A&E). A&E tracks the vast majority of the University’s assets, investments, and their value. The current system is out-of-date and badly in need of replacement. The new system will be a custom application based on Java;

• To create an online academic planning and advising system within PeopleSoft. This will replace the current manual and inconsistent methods for tracking student advising and planning with a standard, centralized, and consistent method within PeopleSoft;

• To create two new methods for salary planning and administration. The Office of the Dean of Faculty (DOF) and Human Resources (HR) each have unique needs with regard to salary planning and administration. In both cases the existing applications are manually-intensive, unsupported, and error-prone. Both DOF and HR will have new systems (Java and PeopleSoft-based respectively) created that will greatly improve these processes;

• To develop Student Employment Phase II to incorporate additional functionality. Currently, the Student Employment Application allows the posting of open positions. Phase II will enable students to create an online profile and apply for open positions, and it will allow hiring managers to do the actual hire online.

FY10 goal: Identify and implement IT-related cost savings initiatives to assist administrative offices and academic departments, as well as OIT, in achieving their University savings targets

Like other colleges and universities, Princeton is significantly affected by the turmoil gripping the financial markets and economy. Everyone within the University community is working diligently to sustain our core priorities through these challenging times.

Working collaboratively with administrative offices and academic departments across campus, OIT will identify and implement opportunities to achieve IT-related cost savings, including the following initiatives:

• PrintLess
• Cluster Computers
• E-reader Pilot
• Desktop Computers
• Mobile Communication Devices
• Video Conferencing
• Enterprise Content Management
• IT Infrastructure Consolidation
• Web Development Services
• Technology Consulting Services
• Printing, Copying, and Faxing

FY10 goal: Attract, develop, and retain quality information technology professionals

OIT will continue to strive to be a role model in all aspects of organizational management and in building a strong community of talented and customer service oriented IT professionals. During FY10, we plan to enhance many of our organizational practices in order to leverage the consolidation of staff and processes at 701 Carnegie Center. In addition, we will continue to make OIT a more welcoming and inclusive organization by offering opportunities to come together formally and informally, to explore commonalities and differences, all to gain a deeper appreciation of a diverse workforce.
OIT Advisory Groups

IT Governance Model

OIT

Provost

Senior Advisory Group for IT (SAGIT)

Enterprise Systems Planning Group (ESPG)

Project Managers Team (PMT)

Committee on Academic Technology (CAT)

Academic Managers Group (AMG)

Administrative Departments

Data Managers Group (DMG)

Desktop Systems Council (DeSC)

Faculty Committee on the Library and Computing (FCLC)

Research Computing Advisory Group (RCAG)

Academic Deans

Department Chairs & Faculty
Senior Advisory Group on IT (SAGIT)

The Senior Advisory Group on IT (SAGIT) advises the Provost on administrative and academic systems projects that have been endorsed by the Enterprise Systems Planning Group (ESPG) and considers budgetary matters related to those projects. The specific charge of the group is:

- To evaluate administrative and academic systems project proposals and review the proposed funding mechanisms for capital and operating expenditures required for such systems;
- To assess steady-state costs of maintaining current systems and required IT infrastructure;
- To identify new systems opportunities that should be evaluated;
- To ensure projects are fiscally responsible and assess whether proposed funding mechanisms are satisfactory;
- To advise the Provost with regard to budgetary or other issues posed by projects.

During FY09, members of the SAGIT were:

Carolyn Ainslie, Vice President for Finance & Treasury
Mark Burstein, Executive Vice President
David Dobkin, Dean of the Faculty
Chris Eisgruber (chair), Provost
Betty Leydon, Vice President for Information Technology & CIO
Jed Marsh (secretary), Vice Provost for Institutional Research

Highlights

During the past year, SAGIT reviewed and funded the following project proposals:

- Animal Care Facility software
- Remote access and support for mobile devices
- HR web-based salary administration
- Campus Card Transaction System replacement
- University Travel/Funding database enhancements
- PeopleSoft Financials system upgrade
Enterprise Systems Planning Group (ESPG)

The Enterprise Systems Planning Group (ESPG) critically assesses all administrative and academic systems efforts, determines existing needs, and identifies key opportunities to enhance the University’s administrative and academic systems and to build upon our investment in existing systems. The specific charge of this group is:

- To evaluate the University’s current administrative and academic systems;
- To identify gaps, needs, and opportunities;
- To recommend the appropriate distribution of resources for new systems, maintenance, upgrades, and development efforts;
- To ensure that the University’s administrative and academic systems meet the needs of faculty, staff, and students;
- To endorse project proposals, which will then pass to the Senior Advisory Group on IT (SAGIT) for further review.

During FY09, members of the ESPG were:

Carolyn Ainslie, Finance and Treasury
Janet Dickerson, Campus Life
Kate Fischer, Academic Managers Group
Claire Fowler for Nancy Malkiel, Dean of the College
Patty Gertz for Brian McDonald, Development
Polly Griffin, University Registrar
Ben Hammond for Michael McKay, Facilities
Karen Jezierny for Robert Durkee, Office of the Vice President & Secretary
Betty Leydon (chair), Office of Information Technology
Jed Marsh, Office of the Provost
Sandra Mawhinney for William Russel, Dean of the Graduate School
Kris Miller for David Dobkin, Dean of the Faculty
Nilu Shroff, Chief Audit & Compliance Officer
Laura Strickler for Mark Burst, University Administrative Services
Lianne Sullivan-Crowley, Human Resources
Karin Trainer, University Librarian
Ex Officio:
Nancy Costa (secretary), Office of Information Technology
Colin Currie, Office of Information Technology
Serge Goldstein, Office of Information Technology

Highlights

During FY09, the ESPG:

- Received briefings on Information Security and procedures for setting new security profiles (Betty Leydon), IT Emergency Readiness (Donna Tatro), Laptop Security (Steven Sather), Roxen Websites (Mary Albert), OIT Technology Consulting Services (Sal Rosario), Digital Repositories (Mark Ratliff), University PrintLess Campaign (Leila Shahbender), University e-Reader Pilot (Serge Goldstein), Video Teleconferencing at Princeton (Serge Goldstein);
- Endorsed project proposals for Human Resources Web-based Salary Administration (Steve Blechman), Bridge Year Program (Polly Griffin), and PeopleSoft Financials Upgrade (Carolyn Ainslie);
- Provided oversight of the FY09 IT Project Portfolio and endorsed the FY10 IT Project Portfolio.
Project Managers Team (PMT)

The Project Managers Team (PMT) provides leadership and guidance on the delivery of administrative products and services, and continues to support the application and data management principles established under Partnership 2000. The PMT acts as the “working group” in support of the efforts of the Enterprise Systems Planning Group (ESPG). The specific charge of the group is:

- To identify, assess, and prioritize mandatory maintenance (regulatory updates, software upgrades) and enhancements (to fill gaps in current functionality and/or deliver new functionality) to University systems;
- To coordinate systems requirements across offices and departments;
- To facilitate activities that foster the improved use of IT products and services at the University;
- To achieve the highest level of customer satisfaction in meeting the IT needs of the University community.

During FY09, the members of the PMT were:

Betty Ashwood, Financial Aid
Marvin Bielawski, Library
Maria Bizzarri, Treasurer’s Office
Steve Blechman, Human Resources
Kathleen Bozowski, Transportation & Parking Services
Christopher Brock, Athletics
Justin Bronfeld, Graduate School
Ted Bross, OIT, Custom Development, Data Warehousing & Integration
Nancy Costa, OIT, Finance, Administration & Planning
Colin Currie (chair), OIT, Administrative Information Services
Janet Finnie, University Health Services
Patty Gertz, Development Office
Lynn Grant, Housing
Ash Hadap, OIT, Collaborative Solutions
Dave Herrington, OIT, Departmental Application Services
Amy Hughes, Registrar’s Office
Emily Jeng, OIT, Custom Application Development
Andrew Kane, Housing
Donna Lawrence, OIT
Joanne McLaren, Treasurer’s Office
Kris Miller, Office of the Dean of the Faculty
Joseph (JP) Plaksa, Housing
Craig Richmond, Treasurer’s Office

Irina Rivkin, OIT, ERP
Nick Robinson, TigerCard & University Ticketing
Alla Ryklin, OIT
Emily Shandley, University Scheduling
Laura Strickler, University Administrative Services
Janet Strohl-Morgan, Art Museum
Chizuko Walter, Office of Research & Project Administration
Mark Washington, Facilities
Glenn Wemple, Undergraduate Admission
Igor Zivkovic, Public Safety

Ex Officio:
Mary Albert, OIT, Web Development Services
Chuck Augustine, OIT, Systems & Data Management Services
Deborah Becker, OIT, Database Administration Services
Devaki Ginde, OIT, Packaged Solutions & Integration
Janice Guarnieri, OIT, IT Training, Documentation & Support
Charles Kruger, OIT, Enterprise Servers & Storage
Steve Niedzwiecki, OIT, Security & Data Protection
Lea Novak, OIT, IT Documentation
Sal Rosario, OIT, Technology Consulting Services
Anthony Scaturro, OIT, University Security Officer
Barrie Sutton, OIT, Project Coordinator
Donna Tatro, OIT, Enterprise Infrastructure Services

Highlights

During the past year, the PMT:

- Continued to invite new members from diverse business functional areas and OIT support areas to ensure that all resources required are involved in the planning of the projects;
- Reviewed and updated monthly the status of projects in the IT Project Portfolio. Key projects included: PeopleSoft HR/SA/CC 9.0 Upgrade, Princeton Receivables, Financials Data Warehouse, Web-based Salary Administration, University Scheduling and Calendaring, and Central Authentication/Identity Management. Most importantly, the PMT discussed interdependencies across projects;
- Provided a monthly update of relevant IT security news;
- Provided a forum for cross-departmental discussion of topics including data repository technologies, imaging technologies, data center needs, planned outages, disaster recovery, PUID policies and practices, UPS replacement, information access best practices, Vista testing and migration, and other related topics of general interest;
- Assembled a comprehensive list of FY10 IT project proposals for ESPG review.
Data Managers Group (DMG)

The Data Managers Group (DMG) is comprised of mid- and high-level University administrators who have stewardship responsibility for data stored within University business applications. Data Managers are responsible for the collection and maintenance of specific data in their functional areas, enforcing corresponding policy and procedures, and providing accurate analysis and presentation of their data for reporting.

Data Managers serve as the primary source of information on their data, recommend security classifications and assign access rights for all their enterprise data, and are responsible for researching problems, recommending solutions, developing documentation, creating policies and procedures, and implementing processes required to address data administration issues.

During FY09, the members of the DMG were:

- Betty Ashwood, Financial Aid, Student Employment
- Maria Bizzarri, Treasurer's Office, Receivables
- Kathleen Bozowski, Transportation & Parking
- Justin Bronfeld, Graduate School
- Ted Bross (chair), OIT, Custom Development, Data Warehousing & Integration
- Maureen Ciambrello, Treasurer's Office, Student Accounts
- Lisa DePaul, Student Housing
- Cynthia DiTullio, Development Office
- Eugenia Evans, Faculty & Staff Housing
- Judith Farquer, Graduate Student Financial Support
- Patty Gertz, Development Office
- Lynn Grant, Housing
- Michael Hauser, Development Office
- Amy Hughes, Registrar's Office
- Andrew Kane, Housing
- Suzi Kennedy, Human Resources
- Tammy Knutson, Treasurer's Office, University Financial Systems
- John Kraeck, Facilities
- Peter Krivcov, Treasurer's Office Investment Administration
- Joseph Lane, Treasurer's Office, Purchasing
- Jonathan Lebouef, Registrar's Office
- Kevin Leighton, University Health Services
- Janet Lute, Library
- Jed Marsh, Office of the Provost
- Laurie McVicker, Human Resources
- Kris Miller, Office of the Dean of the Faculty
- Judith Oakley, University Health Services
- Pieter Richards, Treasurer's Office, Systems Administrator
- Craig Richmond, Treasurer's Office, University Financial Systems
- Nick Robinson, Tigercard and University Ticketing
- Brian Rounsvaill, Treasurer's Office, Purchasing
- Jeff Rowlands, Library
- Arati Seth, Development Office
- Kathy Swick, Treasurer's Office, University Financial Systems
- Jim Taylor, Tigercard Data Manager, TigerCard Office
- Chizuko Walter, Office of Research & Project Administration
- Glenn Wemple, Undergraduate Admission
- Edward Yuncza, Treasurer's Office, Technical Support
- Ex Officio:
  - Suzanne Coletti, OIT, Data Warehousing & Integration
  - Shane Farrell, OIT, Budget & Finance
  - Ash Hadap, OIT, Collaborative Solutions
  - Janice Guarnieri, IT Training, Documentation & Support
  - Rita Saltz, OIT, IT Policy Advisor
  - Anthony Scaturro, OIT, University Security Officer
  - Leila Shahbender, OIT, Customer Services
  - Barrie Sutton, OIT, Project Coordinator
  - David Tierney, OIT, Packaged Applications & Integration
  - Dave Wirth, OIT, Telecommunications Services
  - Liz Zodeiko, OIT, Project Coordinator

Highlights

During the past year, the DMG:

- Continued to provide oversight for the transition from the DataMall to the Information Warehouse and for the ongoing configuration of the Cognos 8 reporting environment;
- Provided oversight over the transition from PeopleSoft HCRM 8.0 to 9.0;
- Provided guidance and direction to multiple ESPG projects, including Matriculation, Bridge Year, Rents, PTENS, and TMS replacement;
- Supplied input to OIT regarding the creation of new practices and procedures for account provisioning;
- Worked throughout the year to resolve data issues between and among the University’s disparate central administrative systems.
Desktop Systems Council (DeSC)

The Provost formed the Desktop Systems Council in 1996 to standardize the University’s administrative desktop computer environment. By choosing a standard hardware configuration and a standard software suite, the University is positioned to negotiate favorable pricing, and computer support staffs are better able to provide the best possible support for DeSC customers. Launched originally as the Princeton Desktop Initiative, the program was an essential part of the success of the implementation of new administrative systems at the University.

The goals of the Council are:

• To streamline the costs associated with application development, software installation, computing support, system administration, and software licensing;
• To ensure that the standard administrative computing environment is sustained;
• To enhance the delivery of administrative systems and productivity tools.

During FY09, members of the DeSC were:

Lisa Baratta, Politics
Charlayne Beavers (coordinator), OIT, Support Services
Marvin Bielawski, Library
Nancy Costa, OIT, Finance, Administration & Planning
Joseph Crouthamel, Computer Science
Sal Fattaros, Ecology & Evolutionary Biology
Judy Hanson, History

Ellen Kemp, Woodrow Wilson School
Paul Lynn, OIT, Collaborative Solutions
Dave Morreale, OIT, Desktop Support
Steve Niedzwiecki, OIT, Security & Data Protection
Vikki Ridge, Facilities
Steven Sather (chair), OIT, Support Services
Leila Shahbender, OIT, Customer Services

Highlights

Migration of more than 1500 machines to Microsoft Windows Vista and Office 2007

In December, 2007, DeSC initiated a major migration from Windows XP and Office 2003 to Windows Vista and Office 2007. During FY09, more than 1,500 machines were either re-imaged or replaced with Windows Vista Service Pack 1 and Office 2007 Service Pack 1. The full migration is scheduled for completion by August 1, 2009. Moving the DeSC computers to Vista increases the integrity and security of the environment. To assist with the migration, OIT Desktop Support offers assistance at no labor charge to the departments.

McAfee VirusScan

McAfee VirusScan anti-virus software replaced Symantec Antivirus (SAV) as the antivirus client on DeSC machines as well as on all campus machines. The new service provides the University with a more stable infrastructure, enhanced security, and improved remote management of computer clients.

Test Results Manager Migration to TRM - TechExcel Change Management Module

The team started the TechExcel Project in October 2008 with the server infrastructure installations and configuration of the TRM module. Bringing the TechExcel Change Management system into production in FY10 will add functionality over the current Test Results Manager web application. The most anticipated additions are delegated account and access management for DeSC Business Application Contacts and automated e-mail notifications.

McAfee Endpoint Encryption Production Pilot – Princeton Disk Encryption (PDE) Service

The installation and configuration of McAfee Endpoint Encryption infrastructure occurred during the third quarter. McAfee Endpoint Encryption environment is more scalable and provides better reporting than the Bitlocker and “Event Forwarding” Server service. PDE contains more efficient tools that permit the University to manage users on laptops centrally. The tools also permit authorized department technical staff to manage laptops.

PC Power Management

A new PC Power Management Project aims to reduce the University’s energy needs and to reduce the carbon footprint to 1990’s levels. The Council approved a change in policy that requires that all DeSC models, except the 745 Small Form Factor, have the necessary hardware and are configured for RAID1 Mirroring. The next phase of the project, occuring in May, upgraded the
Microsoft Systems Management (SMS) Server 2003 to Microsoft System Center Configuration Manager (SCCM) 2007 Service Pack 1 Server. A PC Power Management software vendor, 1E, Inc., sent a Consultant in June 2009 to install their NightWatchman software which, once in production, will allow Software Support to hibernate DeSC machines at night. 1E is scheduled to return in August 2009 to install the WakeUp Manager server and client software, which will integrate with SCCM and permit OIT to manage centrally and remotely the power on DeSC machines for software distributions and TSM backups on the weekends.

Planning and Implementing of Client Support for Software (PICSS) Group

The DeSC Software Distribution group was expanded and a new group, the Planning and Implementing of Client Support for Software (PICSS) Group, now plans, coordinates, and implements support for new and upgraded software. The new group administers the distribution of software on Apple and Windows computers (including DeSC) to the campus community.

Departments may now “opt in” to have most of the DeSC core software, not licensed DeSC software, centrally managed on their non-DeSC Windows computers.

The PICSS group investigates the best methods to make software available to faculty, staff and students. The team also attempts to ascertain, through evaluations, the impact of the software distribution methods on various campus populations’ computers. The team also works to assist users who may require additional support. In such cases, staff from the OIT Help Desk, Desktop Support, or DeSC technical contacts provide assistance.

A technical sub-group meets separately to investigate the recommendations of the Desktop Systems Council for DeSC computer users and now also the recommendations of the PICSS General group for the non-DeSC institutional and personal computers. The group also coordinates and schedules the evaluations and implementations of software for the managed environments (DeSC, Clusters, Student Computing Initiative, Faculty Computer Program and Managed Macintosh Environment).

Princeton University Training Team (PUTT)

The Princeton University Training Team (PUTT) aims to create a holistic and integrated framework for management development and staff learning. The group seeks to improve and develop the training infrastructure in order to meet institutional expectations.

During FY09, members of PUTT were:

Nancy Costa (co-sponsor), OIT, Finance, Administration & Planning
Elisabeth Dahlen, Treasurer’s Office
Steve Elwood, Environmental Health & Safety
Steve Garwood, Library
Diedrick Graham, Ombuds Office
Stephanie Green, Academic Managers Group
Maureen Imbrenda (co-leader), Human Resources

Janice Guarnieri (co-leader), OIT, IT Training, Documentation & Support
Karen Mink, Academic Managers Group
Luisa Paster, Human Resources
Vikki Ridge, Facilities
Hannah Ross, Office of the General Counsel
Lianne Sullivan-Crowley (co-sponsor), Human Resources
Nicole Volpe, Human Resources

Highlights

New Manager Orientation

During FY08, PUTT worked directly with the Office of Human Resources (HR) to design the content of a four-part New Manager Orientation Program. During FY09, PUTT participated with HR in the delivery of three New Manager Orientation Programs to approximately 25 new managers each. The program helps new managers understand and comply with the University’s expectations regarding the management of human, financial, physical, and technological resources. The program includes the following goals:

- To familiarize managers with the University’s mission and values;
- To offer academic and administrative managers an overview of the University’s structure, decision-making bodies, and key functions;
- To articulate specific expectations for managers about their performance, and their responsibility for compliance with key University requirements.

The program has been well received. HR has received numerous requests from existing managers on campus to extend this program to “not so new” managers. PUTT has also discussed ways to bring the content of the program to the general manager population. In response to this request, HR has begun offering a program “Managing at Princeton in Today’s Environment.”
Committee On Academic Technology (CAT)

The Committee on Academic Technology facilitates communication and collaboration between IT providers and the University offices most directly responsible for the curriculum. The specific charge of the committee is:

To serve as an informational clearinghouse, so that those responsible for technology and those responsible for the curriculum are well-informed of each other’s initiatives;

- To develop new initiatives that may enhance the curriculum through information technology,
- To help evaluate IT initiatives that affect the curriculum and prioritize the distribution of resources,
- To take leadership to assure that the use of academic technologies in the curriculum receives appropriate assessment, both evaluative and formative.

During FY09, members of the CAT were:

David Redman, Graduate School  
Alberta Noon (secretary), OIT, Academic Services  
Mary Baum, Office of the Dean of Faculty  
Marvin Bielawski, Library  
Serge Goldstein, OIT, Academic Services  
Linda Hodges, McGraw Center for Teaching & Learning  
Clayton Marsh, Office of General Counsel  
Jed Marsh, Office of the Provost  
Peter Quimby (chair), Office of the Dean of the College  
Janet Temos, OIT, Educational Technologies Center

Highlights


Kindle Pilot

CAT considered Princeton’s participation in the pilot of Kindle’s DX eReader device. This device makes it possible to read digitized text on a screen specifically designed for reading, and may help cut down on the printing of eReserve materials. Princeton consumed 50 million sheets of paper last year, 10 million in the student cluster printers. The committee endorsed the pilot and provided recommendations on policies and procedures for the pilot.

Course Book List Project

The Higher Education Authorization act of 2008 requires that “each institution of higher education receiving Federal financial assistance shall disclose, on the institution’s Internet course schedule and in a manner of the institution’s choosing, the International Standard Book Number [ISBN] and retail price information of required and recommended college textbooks and supplemental materials for each course listed in the institution’s course.” CAT discussed the HEA legislation at a number of meetings and decided that Princeton would work closely with Labyrinth books to develop an application that would a) satisfy the requirements of the legislation; b) meet the needs of faculty members, students and librarians to have access to an accurate and up-to-date book list, and c) permit Labyrinth to continue to provide quality services for the University community. As a consequence, OIT is developing the application in close coordination with Labyrinth, and will make it available in time for use by faculty in developing their course book lists for the coming fall semester.

Videotaping Courses

CAT reviewed and approved the videotaping of the following courses: SOC 101, ISC (Integrated Science Course) 231-234, 235-236, FIN568, ECO467/FIN567 and ENG133. Requests to videotape courses continue to be infrequent, but the university is installing Echo 360 units to facilitate such recordings as well as the capture of public lectures and University events.
Digital Assets Coordination

The Digital Assets Coordination team promotes communication among members of the University community who are responsible for producing and/or managing various digital assets and their associated services. The goals of the group are to increase awareness of the University’s digital assets and to share experiences, leverage expertise, promote efficiencies, and share best practices in managing digital assets.

During FY09, members of the Digital Assets Coordination team were:

Joyce E. Bell, Library
Marvin Bielawski (sponsor), Library
Sandra Brooke, Library
Alexander Brown, Library
Dan Claro, Architecture
Trevor Dawes, Library
Jeffrey Evans, Art Museum
Serge Goldstein (sponsor), OIT, Academic Services
Cathryn Goodwin, Art Museum
David Hopkins, OIT, Broadcast Center
Colum Hourihane, Art and Archaeology
Trudy Jacoby, Art and Archaeology
Martin Johnston, OIT, Humanities Resource Center
Ellen Kemp, Woodrow Wilson School
Peter Kopstein, OIT, Educational Technologies Center
Donna Liu, Woodrow Wilson School
Roel Munoz, Library
Rick Pilaro, Visual Arts
Laurel Quigley, OIT, Packaged Solutions & Integration
Mark Ratliff (leader), OIT, University Digital Repositories Architect
Daniel Santamaria, Library
Tsering Shawa, Library
Janet Strohl-Morgan, Art Museum
Jon Stroop, Library
Janet Temos, OIT, Educational Technologies Center
Donald Thornbury, Library
Linda Turzynski, Library
Brian Wilson, Communications
Clifford Wulfman, Library
Carla Zimowsk, History

The Digital Assets Coordination team also added three new members during FY09. Dan Claro assumed Richard Sieber’s place from the Architecture Department. Carla Zimowsk joined from the History Department. And OIT’s new Onbase Document Management Solution Architect, Laurel Quigley, also joined.

During the year, team meetings provided valuable opportunities for members to discuss relevant developments in OIT services, vendor offerings, and asset management practices within various departments.

Two outside speakers spoke about their work. Thorny Staples, Director of Community Strategy and Alliances for Fedora Commons, gave a presentation on the Fedora Commons Repository Software. The talk provided an architectural overview of the repository, demonstrated several use cases, and discussed the roadmap for further development of the system including thoughts on Fedora Commons’s relationship with the DSpace Foundation. Susan Chun, Project Lead at Steve.Museum, gave a presentation on the Steve Museum social tagging project. Her talk described the software developed for the project and results from several implementations. The Princeton University Archives is now using the Steve software to collect descriptive information on archival images related to campus life.

Team members gave summary reports from relevant conferences. Jon Stroop summarized highlights from this year’s Digital Repositories ’09 conference. Mark Ratliff reviewed this year’s Sun PASiG conference and the Digital Curation Conference held in the UK.

During the year, team members demonstrated asset management systems used in their own departments. Each demonstration permitted the group to learn about asset management systems and to provide feedback. Trudy Jacoby demonstrated the latest ARTstor features, focusing on the ARTstor “hosted collections” service that permits Princeton to upload licensed material that is then made available back to the University community without violating any license terms. Brian Wilson gave a demonstration of Cumulus, the asset management system currently used by the Communications Department. He demonstrated features of the system and described the controlled vocabulary and workflow that his department has employed to increase the efficiency and effectiveness of their work with digital images. Laurel Quigley demonstrated OIT’s new OnBase enterprise document management system that is used to store and manage administrative forms and documents. Mark Ratliff introduced OIT’s new Central Authentication System (CAS) and its use within the WebSpace repository. He showed how WebSpace “classifications” could be used to assign metadata to files and then used feedback from the group to help define several generic classifications. He also gave a brief demonstration showing how the WebDAV protocol could be used to gain programmatic access to WebSpace, SharePoint, and other repositories.
One of the team’s ad hoc subcommittees drafted a document outlining the required features of an enterprise digital image management system that could be used by members of communications groups and other groups throughout the University. The subcommittee must now investigate the feasibility of acquiring the system described in the document.

Another of the team’s ad hoc subcommittees made progress in identifying an architectural framework that could be used to federate digital image searches across multiple external and internal collections. The framework currently under consideration includes the WebFeat federated search engine connected to various external image collections and to a single internal search index built from the metadata housed in our various collection management systems. This subcommittee is currently evaluating the feasibility of the architecture.

The team will continue to exchange ideas and recommendations in FY10. The team expects to make additional progress in defining a technical architecture for federating image searches across collections. The team will continue to identify and develop systems that will assist groups throughout the campus with their document, image, and video management needs.

Research Computing Advisory Group (RCAG)

The Research Computing Advisory Group (RCAG) advises and collaborates with OIT on matters related to research computing at the University. The specific charge of this group is:

• To advise OIT on the research computing needs of academic departments;
• To collaborate with OIT on various projects related to research computing;
• To advise OIT on the software needs for research computing.

During FY09, members of the RCAG were:

Mary Lynn Baek, Civil & Environmental Engineering
Robert Calderbank, Applied & Computational Mathematics, Electrical Engineering, Mathematics
Roberto Car, Chemistry, Princeton Institute for Computational Science & Engineering
Emily Carter, Applied & Computational Mathematics, Mechanical & Aerospace Engineering
Kara Dolinski, Lewis-Sigler Institute for Integrative Genomics
Bruce Draine, Astrophysical Sciences
Hank Farber, Economics
Sal Fattoross, Ecology & Evolutionary Biology
Chris Floudas, Chemical Engineering
Serge Goldstein, OIT, Academic Services
Curt Hillegas (chair), TIGRESS and Computational Science & Engineering Support
Scott Karlin, Computer Science
Paul LaMarche, Office of the Provost
Daniel Marlow, Physics
Pino Martin, Mechanical & Aerospace Engineering
John Mateese, Lewis-Sigler Institute for Integrative Genomics
Robert Ortego, Facilities

Jerry Ostriker, Astrophysical Sciences, Princeton Institute for Computational Science & Engineering
Josko Plazonic, Mathematics
Frans Pretorius, Physics
Stewart Smith, Physics
Anatoly Spitkovsky, Astrophysical Sciences
James Stone, Applied and Computational Mathematics, Astrophysical Sciences
Jeroen Tromp, Geosciences, Princeton Institute for Computational Science & Engineering, Applied & Computational Math
Daniel Trueman, Music
Chris Tully, Physics
Doug Welsh, Molecular Biology
Bill Wichser, Princeton Institute for Science & Technology Materials
John Ziegler, Facilities Off-Campus Development

Ex Officio:
Paul LaMarche, Office of the Provost
Betty Leydon, Office of Information Technology
Stewart Smith, Office of the Dean for Research

Highlights

Hierarchical Storage Management System

The installation of the Hierarchical Storage Management (HSM) system was completed during FY09. The HSM system is in full production and is now attached to all of the TIGRESS systems.
University Data Center

RCAG continues to provide important input into the location and design of the new University Data Center. The group aims to ensure the new data center will meet the needs of the University’s researchers and make the best use of University resources.

Artemis

RCAG advised in the doubling of the new SGI Altix ICE Beowulf Cluster, Artemis. Artemis now consists of 192 nodes, each with two 2.83 GHz quad core Intel Harpertown processors and 32 GB of RAM. The entire cluster is interconnected with a built in high-speed, low-latency, Infiniband network.

Sesame

RCAG advised in the acquisition of a blade based Dell Beowulf Cluster. The combination of blade technology and the new Intel Nehalem cpu architecture provide superior sustainability with outstanding performance per Watt for this system. Each of the 448 compute blades has two 2.66 GHz quad core Intel Nehalem (X5540) processors and 24 GB of RAM. The blades are connected with a quad data rate (40 gigabits per second) Infiniband network further enhancing the performance for parallel applications. This new system more than doubles the computational capacity of the TIGRESS HPC Center.

Visualization

RCAG advised in the acquisition of an 8 megapixel display wall for the TIGRESS Visualization Laboratory located in the Peter B. Lewis Science Library. The display wall has a single projector with a native resolution of 4096 x 2160 pixels and 10000 lumens of brightness. The projector is rear displayed onto a 16’ x 9’ screen. The display wall will be available to the University community during FY10.

University Video Coordination (UVC)

The University Video Coordination (UVC) team coordinates video production projects and video streaming events on campus. The UVC team also maintains a portfolio of current and planned video projects and strives to sustain an open dialogue among the various video production, storage, and delivery groups at the University. In addition, the UVC team:

- Coordinates the delivery of video services. The team will provide a venue for the discussion of video project proposals, and ensures that they are delivered as efficiently as possible;
- Seeks to avoid redundancy and duplication of effort, and to maximize the effective use of existing video resources;
- Develops strategies for video production and distribution. The team provides a forum to discuss current video delivery limitations and suggests ways to enhance current practices, including ways to deliver video through streaming media and through the use of cable TV facilities.

During FY09, members of the UVC team were:

- Tom Bartus, Office of Communications
- Betteanne Bertrand, Woodrow Wilson School
- Paul Csogi, Lewis Center for the Arts
- Marguerite d’Aprile-Smith, Lewis Center for the Arts
- Susan Fou, Office of Development
- Serge Goldstein (sponsor), OIT, Academic Services
- Andrew Gosseen, Alumni Council
- Jim Grassi, OIT, Broadcast Center
- Lance Herrington, OIT, Broadcast Center
- David Hopkins (chair), OIT, Broadcast Center
- Lisa Jackson, OIT, Broadcast Center
- Kristian Kauker, OIT, Media Services
- Dan Kearns, OIT, Broadcast Center
- Donna Liu, Woodrow Wilson School
- Kaitlin Lutz, Alumni Council
- Kevin Mills, OIT, Hardware Support
- Mike Mills, OIT, Media Services
- Teresa Riordan, School of Engineering
- Bonelys Rosado, Woodrow Wilson School
- Evelyn Tu, Office of Communications

Highlights

New Meeting Schedule

This was the first year of bi-monthly meetings alternating with the newly formed video spinners group. The video spinners are a sub-group of the spinners. The spinners are comprised of members from each department’s communications office. The sub group was formed to concentrate on video related issues.
Broadcast Center Dedication

On November 21, 2008, the Broadcast Center, a technological jewel on the Princeton campus, was dedicated to the memory of the late Don Albury. Don’s family attended the special event and a plaque was given to Don’s wife. Since then, the center has been running steadily with numerous video studio productions and numerous ISDN audio interviews broadcast around the world.

Firstcom Partnership

User departments are looking for free access to royalty free and high quality music for their video projects. A company called Firstcom met the team’s requirements and offered a reasonable price that the user departments are now sharing. As an added bonus, students within Visual Arts now gain a legal avenue to find and use music in their productions.

Central Media Server

The team continues the quest for unified digital assets management. The Communications Office uses Cumulus, the Broadcast Center uses Final Cut Server, and Visual Arts uses Suitcase. Departments would like to be able to share materials transparently. The team assembled a list of requirements and a search for a solution is ongoing, but no product has yet been selected.

Vendor Presentations

The team brought in regional video production companies to demonstrate their services. As a result, the team was able to observe what services are available in the Princeton region.

Private Screenings

Departments working on video projects showed the team their work for review and technical suggestions. The exercise assisted members to gain insight into roadblocks and policy issues.

Policy Issues

The team updated the Broadcast release forms to include streaming and downloading of video files. The form is being reviewed again in order to facilitate the distribution of public lectures to European television networks.

Training

Some of the departments have expressed interest in creating their own video productions. There are varying levels of expertise throughout the team. An outside video production/training company, Janice Guarnieri, and Sorat Tungkasiri were brought in to present different training options. The outside company’s fees would be paid evenly by each of the members’ department. Janice is helping to coordinate of this project.

YouTube

Princeton has a YouTube site that is now available for departments to post video projects. The policy was developed by the Communications Office, reviewed by the team, and approved by General Council. The service gives Princeton and its events enormous visibility throughout the world.

ReCAP Solution for All Video Archives

The library reviewed the ReCAP service to the team. They explained the benefit of a secure, climate-controlled environment for videotapes and discs. Media Services and the Broadcast Center plan to move their archive to this new location.

Rich Media Installations

Echo360 rich media systems were installed in Icahn 101, Friend Convocation room, Jadwin 407, and Schultz 107. These systems record audio, video and computer output and syncs them together to present a web based rich media presentation.

Reorganization of the University Channels

PUTV 7 will broadcast University programming to the town cable system and campus. PUTV 8 will broadcast University programming only internally to the campus. Channel 20 has been assigned to the PSTN student channel. PSTN was formally Channel 8.
OIT Outreach Programs

The OIT Ambassador Program

The OIT Ambassador Program aims to provide an OIT Ambassador for every department. The Ambassadors help to promote excellent communications between OIT and departments and to maintain a high level of departmental service and satisfaction. OIT ambassadors provide information about OIT services and announcements to University customers and bring back information about customer needs and issues to OIT. Ambassadors meet throughout the academic year on the third Tuesday of each month. 50 OIT Ambassadors serve 83 University departments and programs.

The following is a list of University offices and departments and their OIT Ambassadors:

Admissions, Charles Kruger
Anthropology, Robert Hebditch
Architecture, Annie Saunders
Art & Archaeology, Anthony Scaturro
Art Museum, Hetty Baiz
Astrophysical Sciences, Martin Harriss
Athletics, Matt Immordino
Bendheim Center for Finance, Elliott Gonshor
Butler Residential College, Nancy Costa
Career Services, Liz Zodeiko
Carl Fields Center, Robert Hebditch
Center for Human Values, David Hopkins
Center for International Studies, Peter Koppstein
Center for Study of Religion, Matt Hood
Chemical Engineering, Laurel Quigley
Chemistry, Curt Hillegas
Civil & Environmental Engineering, Laurel Quigley
Classics, Dave Wirth
Communications, David Hopkins
Computer Science, Leila Shahbender
Conference & Event Services, Kathryn Moncado
Creative Writing, Hetty Baiz
Development Communications, Linda Dereka
Dining Services, Mark Rodill
East Asian Studies, Charles Kruger
Ecology & Evolutionary Biology, Grant Weed
Electrical Engineering, Dave Wirth
Engineering & Applied Science, Deborah Becker
English, Russell Wells
Environmental Health and Safety, Usha Patlolla
Facilities, Evelyne Roach
Firestone Library, Anthony Scaturro
Forbes Residential College, Kevin Mills
French and Italian, Usha Patlolla
Frist Campus Center, Sally van Fleet
Geosciences, Deborah Becker
Germanic Languages & Literatures, Steve Albin
Health Services, Bob Stango
History, Ben Johnston
Housing, Marsha Jacobs
Human Resources, Sal Rosario
Humanities Council, Monica Parsons
Industrial Relations, Leila Shahbender
Latin American Studies, Ben Shhabender
Linguistics, Dennis Hood
Mathematics, Charlayne Beavers
Mathey Residential College, Maureen Novozinsky
McGraw Center for Teaching & Learning, Sorat Tungkasiri
Mechanical & Aerospace Engineering, Janice Guarnieri
Molecular Biology, Evelyne Roach
Music, Lance Herrington
Near Eastern Studies, Charles Kruger
Office of General Counsel, Anthony Scaturro
Office of Population Research, Rob Tengowski
Office of the Dean of the College, Serge Goldstein
Office of the Dean of the Graduate School, Dennis McRitchie
Office of the Provost, Betty Leydon
Offices of the President, Vice President & Secretary, Nancy Costa
Office of Research & Project Administration, Marsha Jacobs
Ombuds Office, Jill Moraca
Philosophy, Robert Hebditch
Physics, Charlayne Beavers
Politics, Leila Shahbender
Princeton Blairstown Center, Bob Stango
Princeton Institute for International & Regional Studies, Harris Crist
Princeton Investment Company, Emily Jeng
Princeton Materials Institute, Evelyne Roach
Princeton Writing Program, James Grassi
Princeton Institute for Science & Technology Materials, Dave Wirth
Psychology, Jennifer Chen
Public Safety, Dave Herrington
Registrar, Dennis Hood
Richmond Auditorium, Sally van Fleet
Rockefeller Residential College, Sal Rosario
Slavic Languages & Literatures, Janice Guarnieri
Sociology, Monica Parsons
Spanish & Portuguese, Evelyne Roach
Theater and Dance, Hetty Baiz
Lunch ‘n Learn

We have continued to transform the existing seminar series into fully integrated outreach, with blog posts, podcasts, RSS feeds, and through Facebook, all in all a demonstration of how a small outreach office with sophisticated collaboration tools can leverage its resources. The effort combines more than 20 IT seminars a year (www.princeton.edu/lnl), free audio-only podcasts drawing a very large, worldwide audience at Apple iTunes, a blog to report on and to sustain the excitement of the events (www.princeton.edu/itsacademic).

We have also created a comprehensive presence on Facebook that provides a summary of upcoming events, easy links to the podcasts and photographs, as well as an RSS feed to the stories in the IT’s Academic blog. The coordinated effort received gold for Best Practices in Communications in the 2009 CASE II Accolades Awards.

The FY09 Lunch ‘n Learn seminar series featured a host of speakers, both internal to the University and from the outside. During FY09, the roster included 14 faculty members, 18 University staff members (Library, OIT, MIRTHE, and the Princeton University Press) and one external speaker (Douglas Dixon, Manifest Technologies). Topics ran the gamut from electoral history and air quality testing during the Beijing games to digitizing ancient documents and computer modeling of the mind and brain. When the normal locale in the Frist campus center was unavailable, Lunch ‘n Learn sponsored two special tours of the new Peter B. Lewis Science Library.

Attendance was consistently good, with crowds averaging typically between 30 to 45 attendees. Most of the talks were documented in stories appearing on the “IT’s Academic” blog and some of these stories were shared with relevant academic departments for their own publications.

The podcast initiative continued to thrive, with more than 70 million podcast downloads in just two years! Even the early podcasts remain remarkably popular. Our worldwide audience apparently appreciates access to the kinds of activities that occur at institutions of higher education like Princeton. After most Lunch ‘n Learn seminars, we produce stories for the blog that contain links to the podcasts and to the speakers’ slides as well as interactive polls. And we encourage session attendees and the public to sustain the enthusiasm of the seminars by posing questions to the speakers.

The Productive Scholar

The series’ third year confirmed that it has developed a devoted audience. All of the 19 sessions were again well attended. The most popular sessions were Scanning and Image Editing with Photoshop (40 attendees) and Possibilities in PowerPoint (34 attendees). The basic introductions to Microsoft Word and Excel remain popular. Sessions involving more technical topics such as Stata, MATLAB, LaTeX, LibX, and GIS are less well attended but receive very high ratings from those who come, a clear sign that the program in satisfying varied academic constituencies.

Again this year, we involved student trainers. Two of the sessions involved the STAT group. We continued to add session topics. New during FY09 were Electronic Grantsmanship by ORPA’s Joe Broderick, Backing Up’s Not Hard to do by OIT’s Gretchen Thiele, Possibilities in Powerpoint by the STAT group, WebSpace for Academic Collaboration by OIT’s Mark Ratliff, and the Productive Browser by Wayne Bivens-Tatum, a member of the Library staff.

Being able to draw upon surveys from every session, we were able to respond to the most frequently requested topics (Excel, Photoshop, Final Cut Pro, Acrobat and PowerPoint).

For the first time, we offered a special Productive Scholar summer session on Microsoft Word for Woodrow Wilson School staff members. It drew 42 attendees.

Topics covered in Productive Scholar sessions during FY09 included Word, EndNote, Stata, LaTeX, PowerPoint, Matlab, GIS, Excel, Acrobat Professional, WebSpace, Photoshop, and TSM, the University’s backup utility.

The 18 different instructors involved included 8 staff from OIT (AS, NMC, EOS, ETC), five from the University Library, one graduate and 2 undergraduate students (from the STAT program), and an outside consultant. Attendance averaged nearly 25 people per session, with several filling the 48 seat room to near capacity. A special Productive Scholar session for on Microsoft Word for Woodrow Wilson School staff members drew 42 attendees. The total for the entire series was 464 attendees, down slightly from last year’s 530.

A breakdown of attendees indicates that, for the third year, academic staff accounted for the majority of the audience at 42%. At 20%, administrative staff was the second largest group attending with library staff not far behind at 18%.
Student Technologist and Trainer (STAT) Program

The STAT program continues to offer In-Your-Office Visits free, one-to-one training consultations to faculty and academic staff members. A student or staff member will come to an office to provide assistance with University-supported software and technology tools. Stat also offers private site training sessions, essentially one-to-one consultations for faculty and academic staff, also free of charge. This one-to-one, in office service not only provides an opportunity for faculty to receive training customized to their individual computer literacy levels and personal goals, but also acts as a complementary follow-up service after any large group presentations (including the Productive Scholar) and software training sessions. Finally, STAT offers a one-hour introduction to the OIT services and resources to new faculty. The session includes webmail, PSync, handy bookmarks, personal webpage, online appointment schedules, software purchase site, eReserves, video reserves, H and M drives, and other new user basics.

Thanks to a well-prepared squad of student trainers, a new tracking system and various outreach efforts such as the new STAT website (that includes suggested training session syllabi and a revised request form highlighting the larger range of applications—from Acrobat to Web Appointments), office visit requests continue to increase.

During the year, the STAT program served 38 departments and programs, up from 34 last year. Most of the requests are for assistance with Blackboard, but assistance with Excel 2007, Web Appointments, Power Point 2007, Dreamweaver, Word 2003, Excel 2003, and Vista were also requested frequently.

During the year, the STAT Program provided training to 38 departments and/or programs and served 96 members of the University community. There were a total of 56 individual sessions and 10 group sessions. 41 of the sessions were with University faculty; 25 were with Support Staff within Academic departments.

SCAD/DCS Program

The Support for Computing in Academic Departments (SCAD) and Departmental Computing Support (DCS) programs complement OIT’s central support by providing departments with a higher level of individualized advocacy and attention. In an effort to bring up-to-date information and service to the departments, their consultants participate in monthly meetings and training sessions that address common concerns and issues related to campus computing.

80 SCAD members serve a total of 65 academic departments and Programs. 60 DCS members serve a total of 40 administrative offices.

Both programs continued to grow at modest rates. During FY09, seven departments joined the SCAD program and three departments joined DCS. A number of SCAD and DCS departments, including Anthropology, Latino Studies, ORPA, Neuroscience, Linguistics Program Council for International Teaching & Research, Davis Center, Tikvah Project, Medieval Studies, Princeton Blairstown, Princeton Environmental Institute, MAE, International and Regional Studies, Center of Human Values, increased their percentage support for the programs.

During FY09, training for SCAD/DCS members included:

- Migrations from XP to Vista Professional
- Hands on Vista OS
- Advanced PHP/MSQL
- Introductory and Advanced Security Management
- Security: What to look for if hacked
- Network Storage
- Network Infrastructure Training
- SharePoint Intermediate (two session)
- SharePoint Intro (two sessions)
- SharePoint Intermediate (two sessions)
- SharePoint Designer Boot Camp (two sessions)
- Roxen Intro (two sessions)
- Roxen Intermediate (two sessions)
- Roxen Advance (two sessions)
- Franklin Covey: 7 Habits Of Highly Effective People
- Web Application Course Certificate (8 month course with MCCC college credits 58 weeks)
Computer Security Team

The Computer Security Team (CST) is a group of departmental computer support personnel who meet monthly to review security initiatives being pursued by OIT and to share their academic and administrative departmental perspectives about University policies and procedures, departmental security needs, technical education, and security awareness. CST continues to provide OIT with valuable information regarding how to tailor our security deliverables to be consistent and supportive of departmental procedures and initiatives.

The team is open to all members of the SCAD/DCS community who have a particular interest in helping to shape the University’s information security-related direction. During FY09, the CST reviewed these information security-related topics:

- WebLAMP best practices
- McAfee migration and rollout
- Administering Administrative Sub OU’s for departmental clusters and non-DeSC PC’s
- The use of Digital certificates and digital signatures on campus
- DNS Security Extensions
- Ongoing evaluation of spam protection
- CompuTrace
- Document protection and group encryption schemes
- Security concerns during physical movement of equipment
- SCAD/DCS responsibilities in the event of a technological break-in
- Laptop encryption

Coverage for Extended Absences

The SCAD/DCS program has also provided support for departments that have a SCAD/DCS who is out of the office for long periods of time owing to sickness, disability, or vacation. In addition, if a department is working on a large-scale project and needs assistance, OIT has provided additional support. This year, SCAD/DCS has assisted the following departments:

- Facilities: A two-month assignment in support of Vista Rollout of more than 100 machines.
- Princeton Institute for International and Regional Studies: A four-month assignment to fill in for a staff member on maternity leave.
- Office of the Dean of Undergraduate Students: A seven-month assignment providing coverage for a staff member on disability. The work involved assistance with website updates, new machine upgrades, setting up computers purchased from surplus, readying old machines for surplus, setting up equipment for new employees, setting up new printers, and assisting in the move of some ODUS staff from West College to Frist Campus Center during office renovation.
- Other departments receiving short two or three week coverage included: Office of the Dean of the College, Office of Religious Life, Chemical Engineering, Bendheim Center of Finance, Economics, Office of the Registrar, Art Museum, the Residential Colleges, and the Princeton Blairstown Center.

Classroom in a Box (CIAB)

SCAD/DCS support staff maintained the Classroom in a Box program. The CIAB program has grown this year to include 23 dual booting Macbook computers that run both Windows Vista as well as Mac OSx, as well as 23 Dell Latitude computers that run Windows Vista.
Departments Participating in the SCAD Program

Afro American Studies, Nivedita Mallina
American Studies Program, Michael Rivera
Anthropology, Kai Laidlaw
Applied & Computational Mathematics, John Vincent
Architecture, Erik Johnston
Art & Archaeology, Julie Angarone
Astrophysics, Leigh Koven
Atmospheric & Oceanic Studies, Sandy Clark
Bendheim Center of Finance, Matthew Parker
Center for the Studies of Religion, Jeffrey Guest
Center of Human Values, Andrew Perhac
Chemical Engineering, Eric Paul
Chemistry, Dan Nordlund
Civil & Environmental Engineering, Islam El Naggar
Classics, Donna Sandemene
Comparative Literature, Jason Robinson
Computer Science, Paul Lawson
Council of Humanities, Jay Barnes
Creative Writing, Rick Pilaro
East Asian Studies, Brandon Eldred
Ecology & Evolutionary Biology, Sal Fattoross
Economics, Matthew Parker
Electrical Engineering, Jay Plett
English, Kevin Mensch
European Cultural Studies, Carolyn Hoeschele
French & Italian Languages, Michael Rivera
Genomics, Robert Kuper
Geosciences, Brian Mohr
German, Sean Piorowski
Hellenic Studies, Carolyn Hoeschele
History, Carla Zimowsk
Industrial Relations, Jeannie Moore
Judaic Studies Program, Carolyn Hoeschele
Jefferson Papers, Jason Bush
Latin American Studies, Andrew Perhac
Latino Studies, Carolyn Hoeschehel
Mathematics, Josko Plazonic
Mechanical & Aerospace Engineering, David Radcliff / John Grieb
Molecular Biology, Alexander Oganesov
Music, Alexander Kas
Near Eastern Studies, Tammy Fortson
Office of Population Research, Wayne Appleton
Operation Research Financial Engineering, Michael Bino
Philosophy, Jason Robinson
Physics, Vinod Gupta
Politics, Douglas Rosso
Princeton Institute for International & Regional Studies, Nivedita Mallain
Program in the Ancient World, Carolyn Hoeschele
Psychology, David Berkowitz
Princeton Environmental Institute, Raj Chokshi
Princeton Material Institute, Dan McNesby
Princeton Neuroscience Institute, Randee Tengi / Garrett McGrath
Princeton Survey Research Center, Jonathan Niola
Religion, Jeffrey Guest
Residential Colleges, Marvin Waterman
School of Engineering & Applied Science, Karen Flamard
Spanish & Portuguese Languages, Michael Rivera
Sociology, Jay Barnes
Society of Fellows in the Liberal Arts, Jay Barnes
Study of Woman & Gender, Candice Kessel
Theater & Dance, Rick Pilaro
University Center for the Creative & Performing Arts, Evan Younger
Visual Arts, Rick Pilaro
Woodrow Wilson School, Cathy Cuff
Writing Program, Keith Thompson

Departments Participating in the DCS Program

Administrative Information Services, Mark Zabieliski
Alumni Council, Kathy Haney
Athletics, Dan Joyce
Art Museum, Janet Strohl-Morgan
Career Services, Jaysep LaSage
Communications Office, John Jameson
Department of Public Safety, Igor Zikovic
Dining Services, Mark Washington
Environmental Health and Safety, Marcia Leach
Facilities, Mark Washington
Friend Center, Karen Flamard
Firestone Library, Eugene Kaganovich
Friend Center, Karen Flamard
Frist Campus Center, Dino Palomares
Index of Christian Arts, Jon Niola
Human Resources, Marie Farrington
Language Resource Center, Barbara McLaughlin Nassau
Hall, Joe Delucia Office of the Dean of the College, John Green
Office of the Dean of Undergraduate Students, Victoria Haddad
Office of Development, Kathy Haney
Office of General Council, Loretta Rice
Office of Operations Support Treasurer Office, Joe Keane
Outdoor Action, Rick Curtis
Peace Center, Catherine Kerr
Princeton-Blairstown Center, Max Siles
Princeton Investment Company, Erin Smithouser
Program in Science & Global Security, Dorothy Davis
Registrar’s Office, Shane Smith
Undergraduate Admission, Glenn Wemple
The OIT Leadership Group

The OIT Leadership Group is comprised of 60 OIT managers, who meet monthly. The mission of the group is to:

- Serve as change agents for improving the effectiveness of the OIT organization. The group recommends and leads efforts to improve the effectiveness of the organization;
- Foster collaboration among OIT leadership. The group participates in professional development workshops that strengthen relationships, and which enhance management and leadership competencies among members;
- Provide cross-organizational communication for OIT projects and operational issues. The group will provide a forum to discuss projects on the OIT Interdepartmental Project Portfolio, as well as discuss OIT operational issues.

An advisory committee of five directs the OIT Leadership Group. During FY09, Mary Albert, Linda Dereka, Tom Dommermuth, Charles Kruger and Sal Rosario represented their respective OIT departments and served on the advisory committee.

During FY09, members of the OIT Leadership Group were:

Mary Albert (advisory), Web Development Services
Chuck Augustine, Systems & Data Management Services
Hetty Baiz, Project Office
Deborah Becker, Database Administration Services
Ted Bross, Custom Development, Data Warehousing & Integration
Robert Caivano, ERP, Financial Systems
Marion Carty, Printing & Mailing
Suzanne Coletti, Data Warehousing & Integration
Linda Dereka (advisory), Communications Services
Tom Dommermuth (advisory), ERP, Human Resource Systems
Jon Edwards, Education & Outreach Services
Shane Farrell, Budget & Finance
Shachi Gawandi, ERP, Student Systems
Devaki Ginde, Packaged Solutions & Integration
Becky Goodman, Integrated Technology Services
Diane Griffiths, Copy Center
Janice Guarneri, IT Training, Documentation & Support
Ash Hadap, Collaborative Solutions
Martin Harriss, Infrastructure Management Services
Robert Hebditch, Infrastructure Management Services
Dave Herrington, Departmental Application Services
Curt Hillegas, TIGRESS and Computational Science & Engineering Support
Dennis Hood, Learning Management Systems
David Hopkins, Broadcast Center
Matt Immordino, Technology Consulting Services
Paula Hulick, New Media Center
Marsha Jacobs, Grants & Housing Management
Emily Jeng, Custom Application Support
Ben Johnston, Humanities Resource Center
Joseph Karam, Collaboration Services Group

Charles Kruger (advisory), Enterprise Servers & Storage
Lorena Lavora, Education & Outreach Services
Donna Lawrence, Package Adaptation & Customization
Betty Leydon (sponsor), Office of the Vice President for Information Technology & CIO
Marie Messler (administrator), Finance, Administration & Planning
Mariani Miller, University Business Application Support
Kevin Mills, Hardware Support
Mike Mills, Media Services
Bonnie Monahan, Telephone Support
Jill Moraca, Web Development Services
Dave Morreale, Desktop Support
Steve Niedzwiecki, Security & Data Protection
Peter Olenick, Networking & Telecommunications
Harris Otubu, Support & Operations Center
Kevin Perry, Educational Technologies Center
Matt Petty, Data Center Operations
Mark Ratliff, University Digital Repositories Architect
Irina Rivkin, ERP Systems
Evelyne Roach, Distributed Computing Support
Sal Rosario (advisory), Technology Consulting Services
Rita Saltz, IT Policy
Annie Saunders, Communications Services
Anthony Scaturro, University Security Officer
Leila Shabbender, Customer Services
Velga Stokes, Communications Services
Barrie Sutton, Collaborative Solutions
Janet Temos, Educational Technologies Center
Henry Umansky, Web Development Services
Grant Weed, Telephone Services
Russell Wells, Production Management
Dave Wirth, Telecommunications Services
Highlights

During FY09, the OIT Leadership Group’s efforts focused on addressing needs of both the OIT organization and its Leadership Group members.

OIT Website Redesign

The OIT Leadership Group was instrumental in highlighting the need to redesign OIT’s website. A project proposal was submitted and endorsed by the OIT Cabinet. As a result, a detailed project plan was developed, involving the commitment of every OIT department/workgroup. It was agreed that the target “go live” date for the new website would coincide with the move to 701 Carnegie Center.

OIT Leadership Group Cost Savings Initiative

In support of their mission to serve as change agents for improving the effectiveness of the OIT organization, the group brainstormed and identified a list of OIT cost savings suggestions. The group identified savings opportunities in several areas—employment practices, energy, purchasing, communications, printing and paper, meetings and food, travel and conferences, training.

OIT Professional Development

After surveying the OIT Leadership Group, improving presentations was identified as a common desire. As a result, workshops in Developing and Delivering Powerful, Compelling Presentations, given by Ivy Naistadt were offered. In addition, as a special opportunity beyond the workshops, Ivy returned to campus to provide personal coaching sessions. Finally, Dennis Hood concluded this topic by offering his tips for Delivering Effective PowerPoint Presentations.

Other OIT Leadership Group professional development activities included:

- Diedrick Graham, University Ombudsperson, facilitated a session on Transformational Leadership, in preparation for OIT’s move to 701 Carnegie.
- For the first time, instead of selecting a single book for discussion, the group decided to offer a selection of books that members could choose from based on their personal interest. The book selections were—A Whole New Mind by Daniel Pink, Emotional Intelligence by Daniel Goleman, Outliers: The Story of Success by Malcolm Gladwell, The World is Flat by Thomas Friedman.

The Spring 2009 All-OIT Meeting

As in past years, the OIT Leadership Group coordinated the Spring All-OIT meeting. Charles Kruger hosted the meeting on behalf of the OIT Leadership Group; Betty Leydon welcomed the staff and shared organizational updates; Dean Mark Watson, interim Dean of the Woodrow Wilson School and professor of economics and public affair served as guest speaker. The meeting featured a video presentation of OIT’s Support and Operations Center; Mary Albert shared an update on the status of the OIT website redesign, and with Betty unveiled the new OIT logo. The meeting concluded with a buffet lunch and the OIT Cabinet sharing “two truths and a lie.”
Digital Repositories

The Digital Repositories team seeks to develop effective strategies for establishing, managing, and promoting services that the University community can use to store and manage unstructured digital data (e.g., files containing text, images, music, sounds, video and other digitized materials). The team helps to insure that all OIT staff members involved in the implementation, management and support of digital repositories are effectively coordinating their efforts. And the team verifies that the various repository products supported by OIT are being appropriately and effectively used, and that OIT is clearly communicating to its customers the appropriate use of these products.

During FY09, members of the team were:

- Steve Albin, Departmental Application Services
- Daniel Chin, Enterprise Servers & Storage
- Devaki Ginde, Packaged Solutions & Integration
- Serge Goldstein (sponsor), Academic Services
- Martin Harris, Infrastructure Management Services
- Curtis Hillegas, TIGRESS and Computational Science & Engineering Support
- Joseph Karam, Collaboration Services Group
- Paul Lynn, Collaborative Solutions
- Kevin Perry, Educational Technologies Center
- Laurel Quigley, Packaged Solutions & Integration
- Mark Ratliff (leader), University Digital Repositories Architect
- Sal Rosario, Technology Consulting Services
- Anthony Scaturro, University Security Officer
- Leila Shahbender, Customer Services
- Janet Temos, Educational Technologies Center
- Russell Wells, Production Management

Highlights

OIT introduced two new data repository services during FY09.

DataSpace is a digital repository meant for both archiving and publicly disseminating digital data that are the result of research, academic, or administrative work performed by members of the University community.

A structured repository meant for secure document storage and retrieval, OnBase is used primarily for storing business records and automating business processes using workflow, electronic forms, full-text search capabilities, and document imaging. These two repositories will provide new functionality required for managing the digital products of research and business at the University.

The WebSpace, SharePoint, and OnBase repositories continue to grow both in content and constituents served. SharePoint holds approximately 23 GB of documents and information from team communications produced by 55 different departments and groups making use of the system. WebSpace has grown to hold approximately 700 GB of data owned by 5,000 individual users, departments, and groups. OnBase now holds 885 GB worth of electronic and scanned documents owned mostly by the Treasurer’s Office, the Development Office, the Library, and the Office of Research and Project Administration.

During the year, the WebSpace repository was integrated with OIT’s new Central Authentication Service (CAS). CAS provides a more secure login mechanism with the additional benefit of Single Sign-on capabilities. As other applications are integrated with CAS, users will be able to navigate between them without needing to login to each application separately. BlackBoard will likely be the next repository to be integrated with CAS.

Mark Ratliff and Laurel Quigley gave presentations to members of the SCAD community to demonstrate key features of OnBase and SharePoint. Mark and Laurel also gave presentations to various departments and individuals to familiarize them with the functionality of OIT’s repository services. Documentation in the OIT knowledgebase was also updated to describe the basic functionality of each service.

The group discussed the viability of the WebDAV protocol as a common standard for accessing repositories. Evaluations of available WebDAV programming libraries have shown that support for the protocol is inconsistent at best. Though most repositories provide some degree of access via WebDAV, compatibility with various WebDAV clients is often unreliable.

The group’s e-mail list was used to keep members informed and to collect feedback on new developments that took place throughout the year. Significant developments in the world of repositories included Microsoft’s introduction of the Zentity repository and the merging of the DSpace and Fedora Commons organizations.
Disaster Recovery

The Disaster Recovery team was formed to complete the work begun as part of Partnership 2000, to maintain a disaster recovery plan in case of a major disruption to the computing services at 87 Prospect. The Disaster Recovery Team identifies the resources and actions needed to restore the campus network and computing infrastructure if the current facilities are impaired. The team reviews and updates OIT’s disaster recovery plans by March 31 annually.

The Disaster Recovery Plan includes:

- A timeline for the restoration of campus network and Internet connectivity;
- A timeline for the prioritized restoration of academic and administrative applications;
- A prioritized list of computing services and the steps needed to re-establish the operation of these services;
- Specific information about the location of backup data and restoration procedures for critical applications and services;
- Business continuity and restoration plans for administrative and academic activities in the event of a major disruption to campus computing services.

The team makes recommendations with regard to improvements to current physical and logical computing environments that would reduce the time needed to restore services in a disaster situation. The team also evaluates the existing network infrastructure, server deployment, and operational procedures to find ways of increasing the availability of computing service to the campus community (through reducing scheduled and unscheduled down-time).

During FY09, members of the team were:

- Chuck Augustine (leader), Systems & Data Management Srvcs.
- Deborah Becker, Database Administration Services
- Colin Currie (co-sponsor), Administrative Information Services
- Dave Herrington, Departmental Application Services
- Charles Kruger, Enterprise Servers & Storage
- Kevin Mills, Hardware Support
- Steve Niedzwiecki, Security & Data Protection
- Peter Olenick, Networking & Telecommunications
- Kevin Perry, Educational Technologies Center
- Anthony Scaturro, University Security Officer
- Leila Shahbender, Customer Services
- Donna Tatro (co-sponsor), Enterprise Infrastructure Srvcs.
- Russell Wells, Production Management
- Dave Wirth, Telecommunications Services

Highlights

Backing Up the Princeton Website

Chuck Augustine and Peter Olenick identified an approach for providing an external web site to which visitors to www.princeton.edu would be automatically redirected in the event that the on-campus web servers were unreachable. Duke University and Princeton will provide each other with virtual server capacity to host a basic web server infrastructure. Each school will arrange separately for a method of automatically transferring web traffic during a failure. Princeton has chosen to use the UltraDNS SiteBacker service to handle the network redirection. The goal is to have this capability in place during the fall of 2009. The resource swapping arrangement with Duke results in a very low cost arrangement.

Support and Operations Center Continuity Plan

Leila Shahbender worked with Charles Kruger to develop a plan for maintaining operation of the Support and Operations Center (formerly the Help Desk) in the event of an outage at 87 Prospect. The Help Desk server is now a virtual machine that can be easily moved between VMware servers in 87 Prospect and New South. In addition, the main OIT web page has been moved from the weblamp server to the Help Desk server. Finally, arrangements have been made for the Help Desk staff to work from home if their on-campus location is unavailable.

Improved Resiliency for Production Servers

The team analyzed the proposal to move all production servers to New South. Owing to the backup diesel generator at New South, the plan permits production servers to continue operation for as long as 90 minutes should campus power be lost. After 90 minutes, battery backup (UPS) protection for the University’s network core at 87 Prospect would be exhausted, and the campus network would cease. The team endorsed the new approach and implementation has begun. Most servers should be moved by the end of December. The SAN storage for databases and the associated servers will remain at 87 Prospect until the SAN is replaced next summer. The disaster recovery plan will be modified to reflect this new configuration.
Storing Business Continuity Plans
Russell Wells modified the Restarting Berkeley program to change all graphics and text that referenced UC Berkeley to refer to Princeton, and to work with Princeton’s CAS authentication infrastructure. The completed program was demonstrated to the OIT Cabinet and to the head of the Emergency Preparedness Task Force (EPTF). We are waiting EPTF feedback about whether they want to use the program, and if so, whether further modifications are needed.

Revised Plan for Network Recovery
The Networking group has adopted a new plan for recovering network services in the event that the 87 Prospect data center is unavailable. The first phase of the plan has not changed. Within 24 hours, networking staff will connect the 15 buildings designated as critical to a network switch that is already serving the New South data center. They will also reconfigure that switch to act as the University’s connection to the Internet. In the second phase, the new plan calls for network electronics to be acquired at the time of a disaster and installed in the fiber hub sites throughout campus to connect all campus buildings to New South. Additional network switch capacity will also need to be acquired for New South to handle all these additional connections. This process will take several weeks.

Improvements to Internal Disaster Recovery Website
The team decided to replace the document repository and forum application on the external disaster recovery website by an externally hosted SharePoint site. A SharePoint site has been established and is being tested by the team.

Disaster Recovery Roadmap
The team developed a high-level “roadmap” of past and future disaster recovery activities and goals. The intent of the roadmap is to provide a description of OIT’s disaster recovery efforts that can be shared with senior University administrators. The roadmap focuses on use of New South for disaster recovery, use of New South to improve reliability, use of off-campus facilities, and planning for continuity of operations in departments across campus. The roadmap will need to be revised to reflect the use of New South for production rather than disaster recovery.

Facilities and Office Management
The OIT Facilities and Office Management team develops and improves OIT administrative processes. As the OIT organization evolves, the team evaluates and recommends new ways to deliver administrative efficiencies. The team fosters communication within OIT and among University administrative staff.

During FY09, members of the team were:

- Joyce Bell, Administrative Information Services
- Nancy Costa (leader), Finance, Administration & Planning
- Matt Immordino, Finance, Administration & Planning
- Betty Leydon (sponsor), Office of the Vice President of Information Technology & CIO
- Marie Messler, Finance, Administration & Planning
- Carol Morea, Support Services
- Dave Morreale, Desktop Support
- Alberta Noon, Academic Services
- Annie Saunders, Communications Services
- Leah Targon, Office of the Vice President of Information Technology & CIO
- Sally Van Fleet, Enterprise Infrastructure Services
- Grant Weed, Telephone Services

Highlights
During FY09, the team became the “701 Carnegie Relocation” team in recognition of its efforts throughout the year to prepare for relocating 160 OIT employees to 701 Carnegie Center.

The team developed a 12 month project plan to identify relocation tasks that would need to be completed 12 months prior to move-in; 6 months prior to move-in; 3 months prior to move-in; 1 month prior to move-in; 2 weeks prior to move-in; during move-in; and after the move-in. The team produced a list of frequently asked questions and answers about all aspects of the relocation process in order OIT to ensure staff. The document included information about the new workspaces, the building facilities, as well as the move-in process.
Information Technology (IT) Architecture

The IT Architecture team works collaboratively with staff throughout OIT and other campus departments to define and articulate the standards, technologies, processes, interfaces and best practices which form the University’s IT architecture.

During FY09, members of the team were:

Deborah Becker, Database Administration Services  
Colin Currie (co-sponsor), Administrative Information Services  
Jon Edwards, Education & Outreach Services  
Serge Goldstein, Academic Services  
Dave Herrington, Departmental Application Services  
Robert Knight, TIGRESS and Computational Science & Engineering Support  
Charles Kruger, Enterprise Servers & Storage  
Paul Lynn (co-leader), Collaborative Solutions  
Dave Morreale, Desktop Support  
Steve Niedzwiecki (co-leader), Security & Data Protection  
Peter Olenick, Networking & Telecommunications  
Anthony Scaturro, University Security Officer  
Donna Tatro (co-sponsor), Enterprise Infrastructure Services

Highlights

The activities of the IT Architecture Team this year were limited to the Reviews conducted by the Architecture Review Board.

The Architecture Review Board (ARB), a sub-team of the IT Architecture team, reviews architectures presented by customers who are deploying or enhancing University systems. During FY09, the ARB reviewed the following system architectures:

- OnBase
- Course Evaluation Web Service / CollegeNet
- QAS Address Cleanup PeopleSoft ‘add-on’
- A&E File Transfer
- T2 Flex(PHP>-.NET)
- Advance Web Application
- Campus Card Transaction System – NuVision
- University Public Calendaring
- Campus Card Transaction System – CBORD
- Centralized Web News Portal
Information Technology (IT) Policy and Security

The IT Security Policy and Security team aims to protect the information and technical resources of the University against unauthorized exposure, tampering, or destruction.

To achieve this goal, the team implements technology, policies, and procedures:

• To reduce the number of locations where the information is stored;
• To restrict access to information and resources on a “need to know” basis;
• To permit access only to authorized resources after the requestor effectively verifies his or her identity;
• To encrypt information when necessary;
• To strengthen system defenses;
• To educate the University community about risks to information and appropriate countermeasures.

During FY09, members of the team were:

Mary Albert, Web Development Services
Steve Albin, Departmental Application Services
Chuck Augustine, Systems and Data Management Services
Jesse Barron, Software Support
Charlayne Beavers, Software Specialist
Deborah Becker, Database Administration Services
Curt Hillegas, TIGRESS and Computational Science & Engineering Support
Joseph Karam, Collaboration Services Group
Paul Lynn, Collaborative Solutions
Dave Morreale, Desktop Support
Steve Niedzwiecki, Security & Data Protection
Peter Olenick, Networking & Telecommunications
Matt Petty, Data Center Operations
Laurel Quigley, Packaged Solutions & Integration
Evelyne Roach, Distributed Computing Support
Rita Saltz, IT Policy
Annie Saunders, Communications Services
Anthony Scaturro (leader), University Security Officer
Bob Stango, Security & Data Protection
Donna Tatro (sponsor), Enterprise Infrastructure Services

Highlights

The following steps were taken during FY09 to improve University security.

Information Locations

The team worked to reduce the number of places where the information is located. Student University IDs are no longer displayed in the online directory. Student computer names no longer contain the student’s netID. And OIT now offers a data destruction service for disks and old hard drives.

Restricting Access to Sensitive Data

The University now restricts access to information and resources on a “need to know” basis.

The restrictions now include information related to network topology. And OIT has implemented the first phase of a new Identity Management system to manage computer user IDs, passwords, and access privileges.

Verifying Identity

The team continues to ensure that anyone who attempts to access information effectively verifies his or her identity before gaining access. Towards that end, OIT implemented enhanced “bank-like” authentication for access to the University’s Human Resource and Student systems. In addition, all privileged users of the PeopleSoft HR and student systems are now required to change their passwords to ensure that they meet University standards for password strength.

Encrypting Information

The team worked to make sure that information is encrypted when necessary. During FY09, for example, OIT implemented a new system to encrypt the hard drives of all University laptop computers.
Countering Hackers

The team continues to strengthen system defenses against hacker attacks. During the year, OIT implemented a central system information and event logging system to find suspicious system activity. OIT also implemented a Reverse Proxy technology to protect certain applications better than before.

Working with the University Community

The team continues to work with and educate the University community about risks to information and appropriate countermeasures. During FY09, OIT developed guidelines for developing secure departmental Web applications. OIT participated in a University committee to implement credit/debit card handling policy and procedures. OIT developed a departmental IT security awareness program. And OIT initiated an annual process to review and revise the University’s IT Security Policy.

Software Coordination

OIT formed the Software Coordination team to maximize the efficiency of software delivery by coordinating software selection, acquisition, and distribution for overall campus use and by introducing version control for publicly available applications in campus clusters and on public UNIX servers.

The OIT Software Coordination team taps the expertise from the OIT departments that provide or administer software for the University community. The team has worked to identify, coordinate, communicate and facilitate the resolution of software issues. And the team has established channels of communication with departmental representatives and defined a process through which members of the University community can identify software issues that require attention. The team also strives to ensure that the software installed on OIT public clusters, OIT-imaged machines, and OIT central servers is compatible, and meets the needs of the University community.

During FY09, members of the team were:

- Serge Goldstein (co-sponsor), Academic Services
- Becky Goodman, Integrated Technology Services
- Curt Hillegas, TIGRESS and Computational Science & Engineering Support
- Phil Immordino, Desktop Software Support
- Charles Kruger, Enterprise Servers & Storage
- Robert Lawler, Administrative Information Services
- Lorene Lavora, Education & Outreach Services
- Steve Niedzwiecki, Security and Data Protection
- Steven Sather (co-sponsor), Support Services
- Leila Shahbender (leader), Customer Services

Highlights

The team discussed the inclusion of Graduate Students in the departmental domain Organization unit (OU) and decided rather to include them within their own OU. The effort will become a project in FY10.

The team reviewed the current variety of repositories for software downloads and decided upon a consolidation. Further discussions will be held in FY10.

Education and Outreach Services began to re-evaluate desktop conferencing solutions to see the University can adopt a more cost effective approach. The current choice, WebEx, does not include voice conferencing in the current package and is, possibly as a result, under-used.

In response to a request from Serge Goldstein to update the campus-cgi system, the team recommended consideration of a re-architecture of the existing web services environments.

The group attended a Facebook webinar and discussed possible uses of the online application, but no serious uses have as yet emerged from the discussions.
Appendix A: OIT Organizational Charts
Office of Information Technology
Administrative Information Services

Colin Currie
Director, Administrative Information Services

Joyce Bell
Executive Assistant

Ted Bross
Associate Director
Custom Development, Data Warehousing and Integration

Devaki Ginde
Packaged Solutions & Integration

Russell Wells
Production Management

Suzanne Coletti
Data Warehousing and Integration

Emily Jeng
Custom Application Development

David Herrington
Departmental Application Services

Suzanne Coletti
Data Warehousing and Integration

Michelle Templon
Technical Analyst

Irina Rivkin
ERP Systems

Robert Lawler
ERP Financial

Tom Dommemuth
ERP Human Resources, Payroll & Benefits

Emily Jeng
Custom Application Development

Devaki Ginde
Packaged Solutions & Integration

Russell Wells
Production Management

Suzanne Coletti
Data Warehousing and Integration

Michelle Templon
Technical Analyst

Donna Lawrence
Package Adaptation and Customization

Ashutosh Hadap
AIS Collaborative Solutions

Shachi Gawande
ERP Student

Marsha Jacobs
Grants and Housing Management

Mary Chang
Yuri Smolyansky

Robert Caivano
ERP Financial

Sandy Weiner

Devki Ginde
Packaged Solutions & Integration

Suzanne Coletti
Data Warehousing and Integration

Michelle Templon
Technical Analyst

Jack Abrattis
ERP Human Resources, Payroll & Benefits

Linda Herrick
Larry Siegal
Joanne Smart
Salvatore Urso

Robert Caivano
ERP Financial

John Van Sant
ERP Security

Sandy Weiner

Austin Bye
Elliott Gonshor
Kurian Nellikunnel
Usha Patlolla
Winfred Siemon
Katherine Zhang

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Office of Information Technology
Support Services – Addendum A

Steven Sather
Associate CIO &
Director, Support Services

Dave Morreale
Desktop Support

Diane Mills
Clerical Support

Phil Immordino
Software Support

Jesse Barron
Joe DeLucia
Andrew Ferguson
Tom Francois
Sarah Kampel
Gail Martinetti
Mark Pellechia
Gary Tesler
Anthony Wilk
Dianne Wolochowicz

Matt Talarick
Craig Fenton
OIT Solutions Center

Kevin Mills
Hardware Support

Dominic Rago
Infrastructure Support

Derek Brown
Edward Cleary
David DeMillo
Richard Doran
Jesse Glover
Bob Gufro维奇
Mike Rea

Chris Longo
Telephone Installation &
Maintenance

Thomas Burrell
Gerald Chianese
Leo Hebert
Ed Machuga
John Sivertsen
Chris Vitale

Frank Indyk
Network Operations Coordinator

Adam Re
Technology Installation &
Maintenance

Craig Fenlon
Joseph Gradl
Tony Jones
Todd Klingaman
Marcos Lopez
Jason Moran
Steve Nappa
John Orechowski
Jeffrey Preischel
Ed Sikorski
Tod Starliper
Stacey Stratton

Greg Meszaros
Business Administration

Andrew Goodman
Michael Lease
Bob Mills
Michael Sanfedele

Jim VanHise
Admin. Support

Dale Leon
Norm Newborn (CH)
Robert Wassall
Appendix B: IT News at Princeton
One of 10 undergrad admissions officers visits networking sites

Grad schools consult Facebook

by Kelly Kieran
PRINCETONIAN ALUMNI WRITER

IT News at Princeton

September 26, 2008, The Daily Princetonian

Calling all seniors — it may be time to clean up your Facebook profiles. According to a survey conducted by Kaplan Test Prep between June and August, 15 percent of law school admissions officers and 10 percent of undergraduate admissions officers have “personally visited personal networking sites to help [them] evaluate an applicant.”

One hundred and fifty-two law schools and 320 of the top 500 colleges participated in the survey, though Princeton did not.

Kaplan annually surveys law schools, medical schools, business schools and undergraduate programs, “all for the purposes of getting information for students and applicants who come to use to give them the up-to-date landscape for admissions,” Ken Storh, admissions and pre-law director at Kaplan, said in an interview.

Use of social networking sites by admissions officers has risen so dramatically in recent years that 17 percent of law schools are in the process of formulating a policy about how to deal with the use of personal networking sites in the admission process, Storh explained.

See INTERNET p. 3

There is no reason for us to doubt the character of a student because of what they put on their Facebook page, we would take that into consideration,” she said.

The survey found that law school admissions officers are the most likely to search social networking websites.

Law schools, unlike medical schools or business schools, rarely do face-to-face interviews,

Storh said, adding that profiles give law schools a chance to assess applicants’ characters.

Law schools are probably under the greatest pressure to say this is a person of character,

Storh noted, explaining that the character and fitness of law school graduates will be carefully evaluated by bar associations.

Using discretion

Fifty-two percent of the admissions officers who responded that they had visited personal networking sites reported that their visits had a negative impact on the applicant’s chances.

Many students believe that photos are the greatest danger to their application success.

Storh said that wall posts may be much more damaging.

Many people ... think it will be a picture of me drinking at a party,” he explained. “I think what is far more likely to hurt your chances is having a discussion on your wall about your [graduate school] applications.”

In fact, photos of parties and drinks may not necessarily cause a problem, Storh said, explaining that he believes “that admission officers know that college kids are college kids.”

Wall posts or discussions that reveal damaging information on the other hand, such as academic problems or past legal history, could be fatal to a graduate school application,

Storh explained.

“What you put on a social networking site ... is not very likely to get you into law school, but it could keep you out,” Storh said.

Laurie Frey ‘09, who is applying to law school, said she believes the use of Facebook by admissions officers “is a bit like an invasion of privacy,” but added that she has made an effort to keep her profile “clean.”

Really, you have to know that kind of thing is possible when you sign up for any kind of networking site, so it is your responsibility to only put up things you would be ok with an admissions office seeing,” Frey said.

“Students who are in the application process should be mindful of what they make public,” she said.

Though it is easy to get caught up in the privacy fixation, Storh said that the thing that gets you into law school is still great grades, great scores and great personal statements.

Seventy percent of these admissions officers said [the] LSAT is their number one criteria, and GPA is second,” Storh said. Still, Storh recommends that students play it safe.
Appendix B: IT News at Princeton

September 30, 2008, The Daily Princetonian

TECHNOLOGY

OIT releases trial run of revamped Webmail

By Maria Carey
PRINCETONIAN CONTRIBUTOR

A new Webmail client, @Mail, will replace Sun Java System Messenger Express starting Oct. 14, providing users with upgraded e-mail functionality. Current users can test the new interface through a link on the regular Webmail login page.

The switch is a result of a collaboration among the USG, the Graduate Student Government (GSG) and OIT that started last spring as a response to student surveys and discussions about the current system.

The new email client retains the same storage capacity and file-size limits for attachments, but there are upgrades to the search and organization functions.

Along with a new layout and design, @Mail provides users with an e-mail preview pane, click-and-drag options and the ability to mark messages as unread.

There are two interfaces for the client, dubbed "simple" and "advanced," which offer different user experiences. The simple version "asynchronously loads data from the server," which allows for greater compatibility with different browsers and operating systems and increases speed, according to @Mail documentation. This interface more closely resembles the Sun Java client compared to the advanced version, which has the look and feel of non-Webmail e-mail clients like Microsoft Outlook and Mozilla Thunderbird.

@Mail to be permanent in 2009

CLIENT

Continued from page 1

Microsoft Outlook and Mozilla Thunderbird.

GENESIS OF THE SWITCH

The USG's IT committee discussed with OIT the implementation of a new e-mail client after receiving numerous student complaints about the Sun Java platform, ranging from general difficulty of use to a problem in which the client claimed that users' inboxes were empty, USG president Josh Weinstein '09 said in an e-mail.

Focus groups representing students with diverse interests and habits met to discuss potential Webmail improvements, OIT customer services manager Leila Shabender said.

The diversity of discussion at those meetings emphasized how "different groups have different communication needs," she explained.

OIT then "worked diligently" with the USG and GSG to address students' concerns, Weinstein said.

There are no additional costs to switching clients because "what we are doing is ultimately replacing the old system with the new one," OIT information officer Steven Sather said in an e-mail.

STUDENT REACTIONS

"I love the new Webmail; it's so cool," Maya Reid '12 said. "It works more like Gmail or Yahoo or a regular e-mail account."

Though Reid said she didn't have a problem with the old client, she said she liked the new aspects of @Mail, especially the preview-pane feature.

"There was nothing wrong with the old one, the new one is just easier," she said.

Though both versions of the new client are fully available to users, the new system is still in a test period to iron out programming bugs and other problems.

"As with any computer software there are issues you have to work through when installing and configuring it," Sather said. "We believe we have all of the outstanding problems corrected, but the current 'test drive' period will be an additional good test."

Users can provide feedback about the new Webmail by contacting the OIT help desk and will be able to access the old system until spring 2009.

"So far I have only heard positive comments," Sather said.

There are, however, some students who say they have experienced minor problems with @Mail over the past few days.

"It's a definite improvement over the old system, but it still has some glitches," Jenny Lah '09 said. "I lost an e-mail because the spell-check didn't work."
E-mails intended to reduce late charges

Continued from page 1

said he is optimistic about the success of the new notification system. "This service is definitely a step forward. It's easy to get lost with all the different deadlines — coursework, extracurricular, jobs, etc. — and having a friendly reminder will be really helpful," Weinstein said in an e-mail.

"Major thanks to [Senior Policy Adviser] Rita Saltz and Trevor Dawes — this has been something students have been suggesting to me for a long time, and once we contacted them they were able to move the project along very quickly," Weinstein added.

Several students interviewed said they thought the new system will be beneficial.

"I think it'll help. Four weeks is a long time to remember to hand return books, and that's the minimum," Daneka Abellard '11 said in an e-mail. "Some things don't need to be returned until the end of the semester or the school year. I personally think I'd need a reminder."

Chris Baldassano '09, an engineer who said he doesn't borrow many books from the library, noted that the policy would be beneficial for his roommates because "they'll be taking out several books for their theses ... and might not realize certain books are overdue ... especially because certain books can be taken out for so long."

In addition to the new warning, the library system will continue to send e-mails to patrons a day after books are due. A hard-copy notification of overdue books will only be sent to those who do not have University e-mail addresses, such as those library users who have purchased borrowing privileges.
Education will utilize latest in technology

ELECTRONICS

Continued from page 1

create a more natural interaction between man and machine" to try to extend the benefits of these technologies to a much greater part of the world's population," he said.

Mundie noted, though, that an institution today would need "quite a big disposable income" to purchase this kind of technology.

He said that he has spoken to President Tbugman about how to meet the technological needs of University students and faculty.

Tbugman confirmed an email that the University and Microsoft will continue to talk about whether the ideas that are being developed in the high tech industry are adaptable to the university setting.

She noted, however, that there have been "no specific plans for the University to work together with Microsoft."

In addition to presenting technologies applicable to education, Mundie shared his views on Microsoft's future.

Microsoft's overall goals, Mundie said, are to invent new products, further develop its existing presence in markets and break into new markets.

"Many other companies just focus on extending business they already have," Mundie explained. "When possible, we like to invent new things and disrupt markets ourselves."

One audience member expressed delight with Mundie's presentation.

"It was certainly an impressive display of new technology and some new ideas," engineering school dean Peter Bogucki said of the Mundie's various product demonstrations. "It's great to see that's what's on the drawing board."

Mundie, who has worked at the computing giant since 1992, took over research and planning operations after Bill Gates' semi-retirement to "essentially... focus on the long term," he explained.

During his time with the company, Mundie helped to develop software for the Handheld PC, Pocket PC and Auto PC, as well as non-PC platforms like the Windows CE operating system and early console-gaming products.

He also helped launch Microsoft's digital TV services by acquiring WebTV Networks Inc., and running it as a subsidiary.

Mundie formerly served as Microsoft's chief technical officer for advanced strategies and policy, where he worked with Gates to develop the company's approach to issues related to policy, technology and business.

In 2000, President Bill Clinton appointed Mundie to the National Security Telecommunications Advisory Committee, which advises the president's staff on matters related to U.S. telecommunications infrastructure. In 2000, Mundie was appointed to the Council on Foreign Relations, and later that year, the Task Force on National Security in the Information Age, which helps devise strategies for addressing security challenges in today's world.
University to conduct test of emergency notification system

The University will conduct a campus-wide test of its emergency notification system Friday, Oct. 17, to ensure that all members of the University community can be contacted during a campus crisis or emergency. All faculty, staff and students must update their personal contact information through the appropriate self-service web sites no later than 5 p.m. Wednesday, Oct. 15, to ensure inclusion in the test. Options for adding phone and e-mail contact information are provided through the Student Course Online Registration Engine (SCORE) database, where undergraduate and graduate students enter their information, and also through the Office of Human Resources self-service site for University employees. The SCORE database can be accessed at <https://studentcourses.princeton.edu/pages/SCORE-index.htm>. The human resources self-service site is available at <https://psweb.princeton.edu/pages/HRSERVE-index.htm>.

This annual test of the Princeton Telephone and E-mail Notification System (PTENS) allows new members of the campus community to confirm that they have provided accurate and complete contact information and can be reached in an emergency. This test also is an opportunity to encourage all faculty, staff and students to update their contact information.

PTENS allows campus administrators to notify the entire campus of emergency situations, or to send targeted messages to individuals in a specific building or department for alerts that do not concern the entire campus. Depending on the severity of the emergency, simultaneous alerts can be sent to individuals through landline phones, cellular phones, text messaging and e-mail.

Changes for text messages:

A notable change from last year is that individuals, except for T-Mobile cell phone subscribers, no longer have to opt in to receive text messages. When a cell phone number is added or changed in student and employee databases, individuals will receive a message from 91177, the following confirmation message — PRINCETON ALERT: You are now confirmed to receive alerts from us. More info text reply "HELP" or "STOP TIGER" to opt out.

Individuals subscribed to T-Mobile are not automatically opted in to receive text messages. After entering their cell phone numbers into the database, T-Mobile subscribers will receive a message from 21177 with the following text — PRINCETON ALERT: You asked to receive Tiger alerts, please reply "HELP" or "STOP TIGER" to opt out. This applies only to text alerts.

T-Mobile subscribers will not receive future text message alerts if they do not reply to the confirmation message by sending the following text message: STOP TIGER. Individuals will receive a second text message confirming that alerts will be sent in the future.

Students, faculty and staff do not need to opt in to receive text message alerts if they have previously opted in for the service and their cell phone information has not changed. Individuals who are unsure about receiving text message alerts should send an e-mail to <PTENS@princeton.edu>.

Regarding whether they opt in for text messages, all individuals will continue to receive phone and e-mail alerts based on the current information recorded in the HR self-service and SCORE databases, depending on the nature of the emergency.

During the Oct. 17 test, campus administrators will use the notification system to send simultaneous alerts through landline phones, cellular phones, text messaging and e-mail originating at 9 p.m. The notification system can access up to six phone numbers per person, in addition to two e-mail addresses.

The Oct. 17 text message will begin by stating: "This is a test of the Princeton University emergency notification system." Although the message will advise that it is a test, individuals should give advance notice of the test date to anyone who may receive the message instead of the intended recipient, such as family members or roommates.

All of the University's approximately 12,400 faculty and staff are expected to receive their messages within minutes of the distribution to various groups. As is the case during a true emergency, members of the campus community are strongly encouraged to avoid making phone calls or sending test messages during the test period to avoid unnecessary delays in important communications. Also, individuals should not respond to the test message.

In the event of an actual emergency, the University will continue to relay critical information using the most appropriate options from a full range of notification resources, such as Web announcements, e-mail, an automated voice line, the Tiger TV emergency alert system, local radio stations, door-to-door notifications and posters. The manner of notification will depend on the nature of the emergency.

As an additional precaution, it is important for individuals who receive official emergency alerts to share information with others nearby, in case they have not yet received the communication.

For more information about the notification system, visit <web.princeton.edu/services/emergency/PTENS.html>.

People with further questions about the PTENS system should contact <PTENS@princeton.edu>.

University's online video presence expands

The University has expanded its online video presence with the launch of the Princeton YouTube channel.

The Princeton channel on the popular online video sharing website, located at <www.youtube.com/princeton>, features content highlighting academic research, the University's breaking financial aid programs, student-made works and other topics. Video clips are also published to the Princeton channel by the University's Office of Communications.

The new YouTube channel follows the February redesign of the University home page, located at <www.princeton.edu>, which features multimedia technology showcasing the accomplishments of students, faculty and staff. The home page, which also is managed by the Communications office, prominently features video and other multimedia tools to visually demonstrate the creative and intellectually stimulating nature of life on campus.

The University's online video presence also has expanded through the availability of video recordings of public affairs lectures by Princeton University's Office of the President. The video recordings are distributed through UChannel, a multimedia collection of public affairs lectures from Princeton and other institutions around the world.

The new UChannel site on iTunesU features nearly 1,000 audio and video recordings of public affairs lectures free to users ranging from France to environmental and foreign policy, all from a collection of resources led by Princeton's Woodrow Wilson School of Public and International Affairs. UChannel records these lectures as a public service, as all downloads from the site are free.

The UChannel project has been collecting public affairs recordings since 2006 and offers daily updates on its website, located at <ucampus.princeton.edu>, as well as available through YouTube, Facebook and cable television outlets.

UChannel recorded nearly 22 million hits with more than 563,000 unique views from September 2007 through August 2008.

In addition to videos, the Office of Information Technology has created an online archive of audio and video podcasts of hundreds of lectures and other events held at the University. The podcast website, which launched in 2006, is located at <www.princeton.edu/Weblife/podcasts> and also is available on iTunes. In the last academic year, nearly 18 million podcasts were downloaded. Seventy percent of those downloads came from the United States, while 30 percent came from other countries, including Canada, Germany, Japan, the United Kingdom and China as well as the countries with the highest numbers of downloads outside the United States.
Appendix B: IT News at Princeton

Technology to address concerns

COMPUTING

Continued from page 1

position. UI [user interface] and runs more like a regular client such as Thunderbird, [Mac] Mail or Outlook," Weinstein said.

@Mail also features an improved address book, an auto-address completion element and tabbed e-mail browsing. OIT customer services manager Leila Shahrbender said in an e-mail.

Shahrbender added that new features of @Mail include a tree-style folder view, better support for wireless handheld devices, mailbox sorting and searching, and multilingual support.

For those who prefer the older version, however, the old Webmail will be available until spring 2009.

Like the development of @Mail, Point 3.0 is also the result of surveys and focus groups. The main goals of the new version were to significantly improve speed and aesthetics, Adam Ernst '09 said. Ernst worked with Sean Rubin '09 and Will Peng '09 from the Student Design Agency and Philip Stern '09 to redesign the system. "We were cleaning up very impenetrable and difficult to navigate design," Ernst said.

Rubin is also a cartoonist for The Daily Princetonian.

Point 3.0 uses CAS, the University's new authentication system, to combine features like TigerForums, the Student Course Guide and the Student Room Guide. The aesthetic aim of the new version of Point is to be simpler and easier to navigate, as focus groups frequently commented on the old version's complexity, Weinstein said.

One new feature of Point 3.0 is a printer status module, which allows students to check the status of computer cluster printers. An improved "Events" section and a new survey tool are two elements that will be integrated into Point in the near future, Weinstein said.

A future USG project is a website called "Pairspace," which will tabulate students' most desired changes to campus life by allowing them to input their preferences for any two given ideas. For example, a student would be presented with "longer library hours or extend dinner [hours]," Ernst said, and asked which they prefer.

Users can input their own ideas and choose between already inputted ideas.

"The idea is that you select individual ranking[s], and the USG gets an idea of what students want the most," he explained.

Old features such as TigerTrade, Dinky Times, "Today's Menu," the suggestion box and anonymous course comments will still be on Point, Weinstein said.
David Hopkins, director of the new Broadcast Center, shows visitors around the Center’s HD video room. The state-of-the-art studio is located in the Lewis Library.
Students cite slow speed, complexity as reasons for dissatisfaction

By Ayla Sabmani
PRINCETONIAN STAFF WRITER

Students have expressed mixed opinions of the new University Webmail client, @Mail, since it was released on Oct. 21.

The new @Mail client was the result of an effort by the USG, Graduate Student Government and Office of Information Technology (OIT) to address student concerns with Sun Java Systems Messenger, the old Webmail client. But not all students agree that it has done so, and some feel that the problems have become worse.

"I strongly dislike it," Alexandra Deprez '11 said. "The first time I went on it, I couldn't understand how to open my files. I just like the old Webmail better."

Charlayne Beavers, who works for OIT's support services, said that "most of the calls we receive from students tend to be more initiative issues, navigation issues and basic functionality issues" versus calls concerning glitches or other problems.

Alissa Sasso '12 said that the new Webmail "is just too complicated compared to the old one."

Some students, however, said they felt that certain features or bugs made @Mail inconvenient when used in web browsers like Firefox.

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Appendix B: IT News at Princeton

November 18, 2008, The Daily Princetonian

billing

By Mendy Fisch and
Gabriel Debenedetti
PRINCETONIAN STAFF WRITERS

The University will transition to an online billing and payment system for tuition and student-account charges this winter, University bursar Maria Bizzarri said on Monday. Effective Dec. 1, students and families will be able to use TigerPay, a new system administered by Sallie Mae Solutions and the Office of Information Technology.

Bizzarri cited security as a chief advantage of the online system.

"Security was one of the main reasons for the switch," Bizzarri said. "Everything is on [Sallie Mae's] secured server instead of having everything stored locally."

While the University will continue to maintain copies of the bills along with students' banking information, it has "shifted the compliance to a vendor [that] is expert," she said.

Bizzarri said the decision to switch to online billing was seen in BURSAR page 3

Online billing to increase security

BURSAR
Continued from page 1

made "about a year ago, when we investigated various product alternatives." The system resembles ones used by MIT, Cornell, Harvard, Dartmouth and Penn, she noted.

In addition to improving security, the new system will help the bursar's office focus more on sustainability, Bizzarri said in a statement.

"The new delivery method is a more environmentally friendly delivery method and could reduce as much as 200,000 sheets of paper annually," she said.

Though having families pay online may save trees, it won't necessarily save the University money, Bizzarri noted.

"We think it is close to a break-even, not considering banking fees," she said, explaining that the University must pay Sallie Mae for the platform.

"With the cost of all the IT resources and the time and effort of doing it in-house, it would have cost a lot" if OIT ran the system, Bizzarri added.

She said, however, that she hopes the system will become economically advantageous as more students sign up.

"If more people ... pay electronically ... if that goes up, we go into a saving," Bizzarri noted.

Student Accounts first notified students about TigerPay in an e-mail on Nov. 3, and it has since followed up with two additional e-mails.

Some students welcomed the change.

"Obviously, I'm for online billing in general," Joshua Zeitlin '11 said.

"I think it's more accessible and gives the user more choice in the matter," he added. "You can see in real time what is going on with your finances."

The University will not, however, force families who prefer checks, stamps and envelopes to change their ways.

"We have a contingency plan of sending all those people the paper bills with a reminder to sign up for electronic billing," Bizzarri said.

This flexibility may come as a relief to students such as Devon Damiano '09.

... "My parents handle it, and my dad says he likes paying [the bills] the way he does it now," she said. "He doesn't like bills switching to [an online format] ... When my sorority switched over to electronic billing, he was not happy with it."

For those who decided to enroll, payment logistics will not change. "We haven't changed any of our billing requirements or due dates," Bizzarri noted.
Weinstein ’09 to consider a review of electronic voting procedures.

VOTING

Continued from page 1

we need to look at fixing [the system] as soon as possible,” Weinstein said.

Under the current election framework, the USG creates a survey using the WebSurvey facility and then deploys that survey as an election. Chu explained. When the polls close, an authorized USG member logs onto the WebSurvey facility and converts the survey results to a format that can easily be processed by the Registrar. The USG webmaster then sends the results to the Registrar, who certifies them and notifies the USG of the results.

USG members who have access to the system use the NetID “usgvote” to log on, at which point the individual “can actually delete survey responses or votes from the system,” Chu said, explaining that these USG members can see the list of students who have voted but not the candidates they selected. Chu said it is unlikely that USG members have other mechanisms to manipulate votes, such as adding fake votes. “The election surveys are configured to require NetID authentication, and so the NetID ‘usgvote’ would not be able to input fake votes,” Chu said.

USG webmaster Bruce Halperin ’09 and senior elections manager Bradley Kopern-Kraus ’04 had access to election results in the past. Weinstein said that Halperin was responsible for creating the online survey that is then deployed as an election.

Halperin did not respond to repeated requests for comment. Kopern-Kraus also could not be reached for comment.

Weinstein said that he plans to work with OIT to modify the online elections system prior to the December USG elections so that neither the USG webmaster nor the elections managers will be able to delete ballots.

“I will be in contact with OIT to see what needs to be done in the backend system to make it less vulnerable to foul play.”

JOHN WEINSTEIN ’09

President

The USG may reform its online election system to remove the potential for internal tampering, according to the Daily Princetonian report. USG president Josh Weinstein ’09 and USG senior senator James Chu ’09, who is the systems developer in the Office of Information Technology (OIT), Chu was the original designer of the WebSurvey facility used in the elections process.

“Both as part of the senior systems developer in the OIT and as the elections manager and president, I take these issues very seriously,” and think that the next improvement that we can make is to ensure that the USG election system is secure and fair to all,” Chu said.

“Weinstein ’09 to consider a review of electronic voting procedures.

The last two elections under the current USG administration have been plagued by delays. The last two elections were not fresh and often had several technical errors during the voting period. ‘The NetID ‘usgvote’ would not be able to input fake votes.’

JAMES CHU

OIT SENIOR SYSTEMS DEVELOPER
ACADEMICS

Evals digital

By Joanne Chong
PRINCETONIAN STAFF WRITER

The Committee on the Course of Study, chaired by Dean of the College Nancy Malkiel, has instituted an online system for all undergraduate course evaluations in an effort to increase the ease and efficiency of the end-of-semester process.

Students, who will no longer fill out paper forms in class, will not be able to view their grade for a given course until they have evaluated that course. Users can decline to evaluate, though “very few students actually select this option,” according to the Online Course Evaluation FAQ published by the committee.

Faculty are urged not to communicate grades to students before they submit evaluations to maintain the incentive and the feedback’s objectivity, which may be swayed after students know their grades.

“If faculty members inform students of their grades directly, those faculty members should be aware that students will be able to complete the online evaluation having already seen their final course grade,” the committee said in an e-mail sent to all faculty members.

The online evaluation differs substantively from the paper version in 
See REVIEWS page 3

Students’ feedback is required to see grades

REVIEWS
Continued from page 1

that it gives students the ability to separately evaluate multiple professors and preceptors for a single course.

The online version has fewer questions overall.

“What we know about surveys is the more questions you ask, the less likely you’re going to get any of them completed,” University Registrar Polly Griffin said.

Some students, however, said they think that the condensed format does not allow for enough feedback.

“It doesn’t have a clear ‘what are your comments, other ideas’ section,” Gabriel Kreindler ’09 said, adding that “there’s one question on the lectures and not on precepts. On the written [version] these were separate, but now they’re not.”

The new format does, however, prompt students to give advice on how to improve courses. This feedback will later be made public and is intended to provide better public reviews than USG’s Student Course Guide (SCG), according to the Committee’s FAQ.

“Because the number of responses in the SCG is so small, one or two students can skew the distribution of responses,” according to the FAQ. “With the data we collect moving forward, the information shared with students will be much more accurate and useful.”

The plan to shift from paper to the internet was conceived when CollegeNET, a software vendor from which the University buys its classroom scheduling and calendaring programs, offered an online system for course evaluations, Griffin explained.

The move to an online system will save 20,000 each of Scantron forms, narrative forms and golf pencils as well as the significant amount of manpower required for the manual system.

Some students also said that moving the evaluation process online may encourage them to respond to questions more honestly.

“I feel like when you do [the evaluation] in a classroom with everyone, you’re not as likely to give honest responses, compared to when you’re in your dorm room,” Julia Xu ’11 said.

Despite the new system’s priority on maintaining anonymity, it won’t be able to remove all traces of a student’s identity.

“Being in really small classes, putting in information like class year makes it pretty clear who it is,” Violeta Banica ’09 said.
Congratulations to the employees who recently completed the Management Development Certificate Program


Fourth row from left: Susan Lehre – Art and Archaeology, Eolin Brown – Woodrow Wilson School, Melanie Heaney-Scott – Graduate School, Gail Everett – Art Museum, Kaisha Craig – Psychology, Violetta Chamoun – Dining Services


Front row from left: Nicole Klein – HR, Robert Stango – OIT, Crystal Henderson-Napoli – Lewis Center for the Arts, Barbara-Jean Kennedy – Development Information Systems, Luisa Pastor – HR


Appendix B: IT News at Princeton
January 12, 2009, Princeton Weekly Bulletin

Website showcases array of Healthier Princeton programs

The advisory board, which meets twice a year, was established in 2006 to continue the work of the task force by providing ongoing assistance and advice to the offices responsible for the Healthier Princeton program.

The task force is a collaboration that brings together undergraduate and graduate students, faculty, staff and external professionals in the field to talk about health and lifestyle issues,” said Vice President for Campus Life Lisa Dinham, co-chair of the advisory board. “In my view, the board is a mechanism of thought leadership of campuses by people who have leadership of the campus community.

Since its establishment, work of the advisory board has included the creation of the Alcohol Coalition Committee to focus on issues related to the misuse of alcohol, tobacco and other drugs, implementation of new health services for faculty and staff, such as early prevention wellness screenings and support for student well being programs, such as the Princeton University Health and Wellness Center and the University Health and Wellness Center.

The Healthier Princeton team is currently working to create a comprehensive health and wellness program that will be launched in the fall of 2009. The program will focus on creating a culture of health and well being on campus.

The program will include a variety of events and activities, such as workshops, seminars, and lectures, as well as a comprehensive online resource center.

The Healthier Princeton team is also working with the University Health Services and the Princeton University Health and Wellness Center to develop a comprehensive health and wellness program that will be launched in the fall of 2009. The program will focus on creating a culture of health and well being on campus.

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Lights, Camera, Education

Tinseltown in Tiger Town

David Hopkins & Paula Hulick oversee a new media lab that beams Princeton’s professors to the world

Doug Dixon reports, page 37

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Appendix B: IT News at Princeton

February 4, 2009, U.S.1

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It’s Showtime: New Media At Old Nassau

by Douglas Dixon

February 4, 2009, U.S.1

(continued on next page)
February 4, 2009, U.S.1

(continued from previous page)

press themselves in a variety of ways. Quite a few students come in for group projects. One might be capturing the video using the equipment here, another can do the editing, another the voiceover, or the music.”

“We also support the faculty and their departments,” says Hulick. “We help digitize the slides faculty members need for classes, we scan documents to text, we have a high-speed scanner that scans both sides, and one of the few large-format flatbed scanners.”

Hulick originally trained as a video and radio producer at Mercer County Community College, graduating in 1987 with an A.S. in television production. She worked with the firm Digital Video InterActive group in Plumbboro from 1989 to 1993, supervising its digital video compression services business. After leaving the office and returned to the West Coast, Hulick completed her B.A. in communications at Rutgers (Class of 1994), where she also worked as a multimedia specialist coordinating and shooting sports activities.

After graduating from Rutgers, Hulick came to the new media center at Princeton. “It was me and the manager,” she says. “At the time the equipment was in the Lewis Library.

We worked with a senior who was finishing up his thesis. Rather than a written paper, he did it all in video,” says Hulick.

We had three computers. We didn’t have the student staff, so we were only open from 1 to 5 p.m. Occasionally I’d be walking out the door at five o’clock and one of the students would be standing out there who really needed help.”

After five years the center was up to around 10 systems, and Hulick moved to doing academic project work with the educational technology center. “I needed a change of pace after five years,” she says. “I really wanted to do the project work.” She coordinated projects including the Princeton University Art Museum special collection websites and the Princeton State Project, which explores Diane’s “Comedy” (www.princeton.edu/comedy). “It was a longterm collaboration of nine people from a couple of different departments over two and a half years,” she says. “I ended up as the project manager. I apparently have a compulsive attention to detail and an absurd love of spreadsheets.”

Just about a year ago David Hopkins, who was the manager of the new media center, became the director of the new broadcast center, and Hulick was asked to become the manager of the new media center at the Lewis library. He was brought in to help in April of 2008.

Hulick also works with the broadcast center and educational technology center to plan and produce projects for university department projects, which range from instructional design to web development to video shoots. The broadcast center facilities at Princeton is a 1,600 square foot facility in the basement of the Lewis Library building. It includes the 625-square-foot video studio and a 30-square-foot audio recording booth. The staff includes Hopkins, the director, and administrative assistant, three editors videographers, one broadcast engineer, five student staff members, and three outside freelancers — a number that goes up when there are many projects going on at the same time.

The center’s services include digital video production, the recording of class lectures and public events, post-production, and live streaming delivery. The materials can be streamed to local classrooms, formats, including taped, streaming multimedia, and DVD discs.

The broadcast center consolidates work that was spread across several departments into one group and one location.

“We needed a facility to be able to do great video production work,” says Hopkins. “We would need to take a full crew out and do a full set up to shoot on campus, which was painful and time-consuming. We needed a place where we can bring people in and have everything prepped, and have the set ready to go, as opposed to taking everything everywhere.”

“With the small staff and all the applications that we have set up, we need to make it all efficient,” he says. The equipment in the audio and video studio can be fully controlled through the software and video control room. Much of the work is done on a network of sources that we’re working with, and get them all around to record and then control each device that we want to record onto, a camera or HD clock. And then with one button we can record all the items at once, so we don’t have to run around getting them all set up. The system also controls the on-air sign outside the studio and feeds the program signal to the "green room," so people who are preparing to go on camera can see what’s happening. "Makeup is becoming an important issue," adds Hopkins. "Because we’re doing a lot of programming in high definition." The video studio itself is highly automated. "We went with a very limited staff," says Hopkins. "To conserve on the amount of equipment, all of our cameras are robotic, so we have full control over them. "The cameras are not only zoom and rotate to pan, but they are also mounted on tracks to move along the floor.

(continued on next page)
The studio is set up primarily to serve interview subjects for local and remote news programming. It has a desk, a teleprompter, and green- and blue-screen drapes that serve as backgrounds. But the desk and the tracks for the cameras are all movable, so the facility can be easily reconfigured for other needs.

With today’s digital equipment, the studio cameras are quite inexpensive, around $18,000, down from some $100,000 for its equivalent just five years ago, and actually smaller than a breadbox — about a foot long. However, they do look more conventional when mounted on the automated stands, with lenses and hoods.

The equipment is undeniably high tech, but it sometimes gets a boost from an old stand-by. When a larger weight is needed, everyone reaches for duct tape, sometimes using an entire roll on each camera stand as a counter-weight. “That tape does everything,” says Hopkins.

The broadcast center reaps big power savings on its lighting systems. Conventional spotlights require special power and dimmer systems, and also generates a lot of heat, which makes them tricky to adjust. And all this requires additional cooling, which also adds noise. Instead, the studio uses LED lights, which can be left on without affecting the temperature in the room. “We’re really happy with them, and we’ve gone green,” says Hopkins. “These lights will last for years. You can adjust them and not burn yourself.”

By going all-digital, with digital cameras and digital audio, the facility can work much more efficiently with “tapeless editing.” The cameras feed the A/V signal directly to hard drives on a central server.

(continued on following page)
and also record videotape as a backup. The video then is immediately available for editing, over a high-speed fiber connection, to seven staff editing stations in the building.

The broadcast center staff also shoots lectures and events all over the campus. Some rooms, like McCosh 59, have been retrofitted with video equipment. "It's a three-camera remote control system," says Hopkins, "so we can go to the booth on the site and run it. With other sites, like Nassau Hall and faculty rooms, we've got to bring the equipment. Nothing's mounted permanently for productions."

The broadcast center delivers live and recorded events over TigerTV channel 7 for the Princeton campus, on Patriot Media channel 21 to the entire university community, and through Web streaming media both within the Princeton domain and to the outside world.

"Everybody wants streaming files," says Hopkins. "We manage the programming for the TigerTV channel 7 stream, which is the Princeton student channel. At the top of the hour we run information on events that are happening on campus, and we do both programmed events and live events."

"We also are getting a lot of requests for recording lectures and classes," says Hopkins. The recordings are posted immediately for access by professors. "We have hybrid courses with multi-concentrations that can sometimes involve nine professors," he says. "So the professors need to review what the other professors said the previous weeks in order to plan their lectures."

To encourage students to venture out and attend classes, the recordings are delayed for 10 days. Not a replacement for class attendance, the recordings are rather a study aid, and one the students appreciate, says Hopkins. "The students love it," he says. "They can review things that they missed and things they thought they understood." He says that the broadcast center, which is able to keep track of the number of times any particular lecture is viewed, sees a big increase in demand just before midterms roll around.

Many colleges make courses available to the public over the Internet. One of the best places to find them is Open Culture, or simply Oculture, at www.oculture.com. The website aggregates link to courses and from Yale, UCLA, UC Berkeley, Notre Dame, MIT, the City University of New York, Texas A&M, and a number of other schools.

There are courses and lectures on the Roman empire, Old English, the Aeneid, death (by Yale's Shelly Kagan), environmental law and policy, financial markets (by Yale's Robert Shiller), fluid mechanics, statistics, human emotion, and political theory.

Some universities make full courses free to the public via the Internet. Yale, Stanford, and UC Berkeley are prominent among them. Princeton, however, does not. Its courses stay on campus, says Hopkins. There is ongoing conversation about allowing public access, but so far the nays have it, and what is taught at Princeton, stays at Princeton.

This is true of the university's courses, but one-time lectures and public events are being videotaped for the Internet. More than 550 of them are available as podcasts or videocasts; they are growing in popularity. From July 2 to December 31, they were downloaded 41,466,977 times," says Hopkins.

That is double the downloads from the year ago period. Among the most popular titles are "What is Prayer?", a symposium by President Mary Margaret Funk of Our Lady of Grace Monastery, and Hopkins' own lecture, "Digital Transition." They are all available at the university's website and also from iTunes, a free service.

The group also provides video production services for academic and department productions. "We work with them from the initial concept to the full production," says Hopkins. For example, his department produced an 11-minute video for the New Media Consortium conference as a takeoff on the show "24." And there is growing demand for using video on department websites. "Once the university homepage started to make videos ubiquitous," he says, "all the departments wanted video on their websites."

The broadcast center is also seeing demand for its facilities from outside the university, and from students for non-academic work. "This is our pilot year," says Hopkins, "learning how to balance the requests, work with students, and work with the public. Our standard rate for students is $100 an hour for the video studio, $50 an hour for the audio studio, and $50 an hour for staff assistance."

For Hopkins, the broadcast center position integrates his two decades of experience with both video production and new media. He attended North Central University in Minneapolis, Minnesota, graduating in 1991 with a bachelor's degree in mass communications. "But in the summer time," he says, "I worked here. My last year I did an internship with the media services department, and after some shifting of staff they had a position for me."

As a student in Minnesota, Hopkins helped build his college's radio station and the TV station. Now he is seeing the digital world and the audio/video world converge. "All of this comes together," says Hopkins. "It's all networked. We can integrate all the equipment, and I have the experience with both ends of it."

"We're not even fully open in this place yet, and the video requests have been coming in," says Hopkins. "Our challenge will be to continue to fulfill those requests, and the requests for this facility. We're never bored. The way video is taking off we're just along for the ride."
Ruckus shuts down, citing insufficient ad revenue

By Omar Carrillo
Staff Writer

For avid music fans, Ruckus’ demise has failed to leave a substantial void in the world of legal music downloading.

Before Friday, the service provided subscribers with an unlimited number of free music downloads. Now, the company’s website merely states, “Unfortunately the Ruckus service will no longer be provided.”

Free access to the service was made available to Princeton students on Dec. 13, 2006 after an agreement was reached between Ruckus and the University.

The project was a result of student initiative. University spokes-woman Cass Clift ’06 said in a December 2006 interview with The Daily Princetonian, noting that the administration’s “principal role was to be a signatory on behalf of the student group.”

Several students said the end of Ruckus is of little significance, as music from the site could not be transferred to iPods, CDs or Zunes. Additionally, the service was not compatible with Macs, which as of 2008 were owned by about 40 percent of students on campus, according to Steven Sather, CUIT associate chief information officer and director.

“I was never able to make use of the program to begin with, so I’m not affected by it in any way,” says Nicole Pham ’12, a Mac owner.

Then-USG president-elect Rob Biederman ’08 told The Daily Princetonian in December 2006 that he expected the service to “completely alleviate” music piracy.

See DOWNLOAD page 3

Appendix B: IT News at Princeton

February 9, 2009, The Daily Princetonian
EDITORIAL

Course evals done right

The Office of the Registrar has recently unveiled the results of the first University-wide online course evaluations, which have been gathered in SCORE in a searchable online database. The Editorial Board previously called upon the Registrar to implement just such changes in the course evaluation process, which was previously of little value to students. We commend the University for taking these steps.

Students now complete evaluations online — and before receiving final grades — rather than manually at the end of classes. This streamlines the collection, processing and viewing of evaluation data for all involved. By displaying results online in a searchable format rather than forcing students to download a large PDF file of data on all courses, the Registrar has made evaluations easier to access and increased the likelihood they will be used by students. The Registrar-gathered data represent a wider range of student input that is more comprehensive than the limited number of contributions displayed on the USG’s Student Course Guide (SCG). The database also includes a narrative section detailing student-to-student recommendations, which provide the more detailed, SCG-like specific feedback that the PDF file lacked.

The Registrar’s effort to improve the system are laudable, and the resulting changes have already done much to ensure an easy exchange of information about courses within the University community. But there are several measures the Registrar can take to improve both the usability of the database and the depth of the information it presents.

The interface of the online database needs improvement. Though users can currently search by department and course number, the ability to search by professor or course name is important and lacking, especially for courses that change numbers often or have new professors teaching an established course for the first time. The current drop-down menus, which require selecting several different fields to access an evaluation, can also be confusing to navigate.

Most importantly, the database lacks a section devoted to professor evaluations. Though course material can be critical, more often the professor’s teaching style and the class structure are the most important elements of a course. Including a specific section for student comments on professors would provide students with feedback that extends beyond the quality of course-specific readings or precepts. While the addition of a section that might display critical reviews of professors could raise concerns for the faculty and administration, the leap from course evaluations to professor evaluations is not large. This is especially true because the current student-to-student recommendations often include professor-specific comments.

Given that Princeton is committed to the quality of its undergraduate education, it is imperative that the students have the information they need to make sound choices about their courses. The overhaul of the course evaluation process is a significant step in that direction. The Registrar should be praised for introducing the new system, but several improvements must be implemented before it can reach its full potential for both students and professors.
New online eval. results released

By Josh Oppenheimer
SENIOR WRITER

Grumblings about courses may be a time-honored pastime, but 88 percent of student respondents said their fall 2008 courses were excellent, very good or good, according to the student course evaluation results from the fall semester that were made available online Feb. 11.

Courses in the humanities received the highest ratings, with 93 percent of respondents rating the overall quality of their courses excellent, very good or good. Positive ratings comprised 86 percent of student responses for engineering courses and 85 percent of evaluations for both natural science and social science courses.

This year marked the first time that undergraduates completed their course evaluations online rather than during class time. In previous years, students completed written evaluations during the last class of the semester.

Ninety-seven percent of students completed the online evaluations, including 93 percent of students who formally declined to participate.

The response rate was up significantly from the roughly 60 percent completion rate of previous years. The blue segments represent ratings of "excellent;" red is "very good;" yellow is "good;" green is "fair" and purple is "poor."

Students reviewed elements of their courses, including 94 percent of students who formally declined to participate. The response rate was up significantly from the roughly 60 percent completion rate of previous years. The blue segments represent ratings of "excellent;" red is "very good;" yellow is "good;" green is "fair" and purple is "poor."

Humanities get rave reviews

REGISTRAR
Continued from page 1

previous years, Registrar Polly Griffin said in an email.

As an incentive for students to complete the online forms, students who failed to complete course evaluations were blocked from viewing their final grades until Feb. 9. Most students complied, as only 120 undergraduates and 98 graduate students experienced the delay.

Faculty members were similarly encouraged to submit their grades in a timely manner, as professors were unable to view their course evaluations until they submitted students' final grades.

The threat of withheld grades was "definitely an incentive" for Julie Nkodo '12.

"I check my grades like every five minutes, so I completed the course evaluations as soon as possible," she said.

Initial student reaction to the new course evaluation process has been positive: Griffin said that she has personally received several positive messages from students. Cameron Knab '12 said that reviewing course evaluations online was interesting. "I liked how the results were presented," he said, adding that they were "easy to understand."

"I think the new process has been very effective," he added.

The system of online evaluations was an improvement over the old process, Brianna Moreno '09 said, because "you were able to give a little more detail since you weren't rushing to get out of class."

This added detail can be particularly useful to faculty. Politics professor Kosuke Inai said that he will try to improve his course, POL 345: Quantitative Analysis and Politics, in the future based on student comments.

"The more complete comments are, the more useful," he noted.

While the online evaluations prompted students to provide written feedback about the content, structure and method of instruction, only the "feedback for other students" section was made available to students online. This policy apparently was not clear to all students when completing the evaluations, as one student responded to the "feedback for other students" section for EEB 211: The Biology of Organisms with "(See Above)."

Students had mixed reactions to the withholding of some responses. Nana Young '12 said that she approved of the policy, since specific sections were intended "for the professor to improve."

Knab said he agreed. "The comments from the student to the professor should be between the student and the professor," he said.

Nkodo, however, said she was less comfortable with the policy of partial disclosure. "What were they trying to hide?" she asked.
Faculty with Facebook pages maintain undergrad privacy

By Leah Haynesworth
STAFF WRITER

Though most students worry about family members or future employers viewing their Facebook profiles, they may soon have concerns about Princeton faculty on Facebook as well. An increasing number of instructors at the University are signing up for Facebook profiles.

One professor, who spoke on condition of anonymity, said in an e-mail that she originally set up her account as an experiment while she was teaching a course on privacy. She explained that she wanted to show her students the potential risks of making personal information available on Facebook.

“I set up the account feeling it was only ‘fair,’” she said. “If I was teaching about FACEBOO[K], I should ‘experience’ it.”

English professor and Rocky Master Jeff Nunokawa said he also created his account as an academic experiment, adding that he decided to start writing brief essays daily in the form of Facebook notes. Nunokawa explained that he writes his notes for an audience of Facebook users, treating the site almost like a blog.

Nunokawa, who has written 1,326 notes since he created his Facebook profile, described his use of the site as a “zero-pressure See ONLINE page 2

Rockefeller College Master Jeff Nunokawa checks his Facebook profile page. Nunokawa writes short Facebook notes to his students every day and has so far written more than 1,000 of them.

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Professors wary of friending current students on social network site

ONLINE
(continued from previous page)

The friend request
Several university faculty members are Facebook friends with their students, but some are more discriminating.

The anonymous professor said she only sends friend requests to students who are abroad, have graduated from the University or have otherwise "moved on."

Facebook is a vehicle for her to converse with former students, especially those who need recommendations or just want to stay in touch, she added. "I only accept friend requests from students whom I know well and who studied closely with me," the professor explained. "I really only care about a few students ... and honestly am appalled at the detailed information people give away about themselves."

Nanokawa said that he is happy when students send friend requests to him, but he added that he would never send a friend request to a student himself.

"I don't actively friend students so they don't think I'm weird," he said, adding that "the student might experience that as a form of pressure."

Psychology professor Kenneth Norman said he interacts with graduate students and undergraduate students on Facebook differently, explaining that he only sends friend requests to graduate students whom he considers collaborators and friends.

Checking in
In general, faculty members say they do not use Facebook to investigate their students.

"I do NOT check up on my students ... unless one is, say, giving a concert, and I am curious about the concert," the anonymous professor said.

Nanokawa said that he does not inspect his students' Facebook profiles because it is intrusive, but he admitted to looking at the "little news feeds" sometimes.

Students seemed largely ambivalent about their professors' presence on the Facebook.

Schuyler Sohly is noted that she is friends with a few of her high school teachers. "After graduation, it's not as weird to be friends with them."

"[Using Facebook] could be crossing the line in some instances and in other instances it could be an extension of what goes on in the classroom," Ben Weissman said. Weissman is also the director of national sales and development for The Daily Princetonian.

A link to the outside
University faculty members said they often use Facebook as a means of keeping in touch with people off campus.

"I use Facebook mainly to keep in touch with ... people who are not here in Princeton," Norman said, explaining that he uses the website to keep up with people from "other phases of life, college, high school, friends from conferences [and] people at other universities."

Nanokawa echoed that sentiment, saying that for him Facebook has become a "modality by which I find myself reunited with people my age that I have lost contact with."
Facebook reverts to old privacy policy

By Mendy Fisch
Senior writer

Students with scandalous information on their facebook.com profiles have cause for relief after Facebook CEO and founder Mark Zuckerberg announced Tuesday evening that the site would not be instituting changes to its terms of service.

Facebook had reworded its terms of service on Feb. 4 by deleting a clause that stated that users "may remove [their] user content from the site at any time" and replacing it with a sentence stating that all "user content" would "survive any termination of [users'] use of the Facebook service." The substitution of this clause, which would have allowed Facebook to preserve personal information indefinitely, ignited a storm of controversy among users and consumer-advocacy groups.

Zuckerberg said in a Facebook blog post early Wednesday morning that users had expressed concern over the changes. In making the choice to revert to the original language, he said, the company "decided to take a new approach towards developing our terms."

The Consumerist, a consumer-advocacy blog, first called attention to the changes Feb. 5, claiming that the new language would mean that "anything you upload to Facebook can be used by Facebook in any way they deem fit, forever, no matter what you do later."

"Did they have something else in mind, [such as] selling information to marketers?"

Edward Tenner '65

While the initial terms of service gave Facebook an "irrevocable, perpetual" license to "use, copy, store, retain, publicly perform or display ... adapt, create derivative works, and distribute" anything users posted on their Facebook pages, the new terms of service would have meant that users could no longer prevent Facebook from using their content even after terminating their accounts, the Consumerist reported.

"Make sure you never upload anything you don't feel comfortable giving away forever," the blog said.

See WEB page 2

Thousands joined group to protest change

WEB
Continued from page 1

While Zuckerberg assured users Monday that Facebook "wouldn't share [their] information in a way [they] wouldn't want," many Facebook users were skeptical of his assurances.

More than 100,000 people joined the Facebook group "People Against the New Terms of Service." A statement on the group's page said, "Consumers cannot be expected to rest on the assurance of the good intentions of companies without having some enforceable legal recourse."

Edward Tenner '65, a departmental guest at the University's Center for Information Technology Policy (CITP), said in an e-mail that he was dubious of Facebook's intentions in instituting the term's revisions.

"The big question for me still is what they had in mind, why they wanted to do so in the first place," Tenner said. "Is it just because it's more expensive to scrub people's data than to let it be, even if that part of the site can't be crawled by search engines? Or did they have something else in mind, [such as] selling information to marketers?"

Joseph Hall, a postdoctoral research associate in CITP, said that the legality of changing terms of service without notifying users has come under scrutiny.

"In the Ninth Circuit, which covers most of the West Coast, there have been cases that go all the way up to the Court of Appeals that say that you have to have some sort of affirming action by the user" to enact changes in terms of service, Hall explained.

Though the wording for many online services indicates that the terms of service may be changed without notice, Hall said, currently evolving litigation could prevent companies from continuing to do this.

"There's been murmurs of class-action suits," Hall said.
iPhones interfere with U. wireless network

By Lauren Christensen
STAFF WRITER

Many students are encountering difficulties connecting their iPhones and iPod touch devices to the University's wireless network, according to the website of the Office of Information Technology (OIT).

The problems stem from the use of certain applications installed on the devices that can cause them to malfunction on the network, the website said, adding that those applications occupy more than one Dynamic Host Configuration Protocol (DHCP) client at the same time.

"I have an iPhone, and I've had it since it first came out in June 2007. About six months ago, applications were released for the iPhone, and I've been told by OIT several times that several of these cause issues with the network," said Doug Eshleman '00, who is also an associate editor for news for The Daily Princetonian. "I've had issues since the fall, mainly because some of the applications use the network in ways OIT doesn't like."

The applications have been causing problems most often on ones which use the WiFi network on campus to connect wirelessly to computers or applications that connect and disconnect to the network frequently, Eshleman added.

"This is pretty much banned by OIT because it affects the network settings they've configured. It creates traffic they don't want to deal with because it creates

Large increase seen in number of malfunctioning devices since 2008

TECHNOLOGY

Continued from page 1

a network between your phone and the computer," he said, adding that he regularly receives emails from OIT saying that his applications are problematic and that he has to try to figure out which one is causing the network issues.

"I was kicked off the Princeton network only on my computer and not my iPhone," Alex Krupp '09 said in an email. She added that the process of reconnecting her computer to the network was a huge pain, but she noted that "OIT was extremely helpful."

The OIT website reported that there is a "large increase in the number of these incidents involving iPhones and iPod touch devices since September 2008."

These malfunctioning devices, according to the OIT website, are most often detected as "interfering with service to others." Once this interference is discovered, the website noted, OIT will then "mark the device ineligible for OIT Mobile [Internet Protocol] Service." OIT will then only remove these blocks when the problematic application is determined and removed.

The problem is not unique to Princeton, however. "[OIT] explained that it was an Apple problem that is happening not only on the Princeton campus, but also on college campuses across the country," Krupp said.

One of the common applications causing problems in Princeton is called "Remote," and it is made by Apple to facilitate the wireless control of iTunes on the computer, Eshleman said. There are also issues with syncing iPhones and iPod touch devices when the wireless capability in the portable devices is activated, apparently because the network interprets the syncing connection as a type of private wireless network, he added, noting that OIT has a list of problem applications but that not all of the problem applications are known.

"It's going to be a continuous problem because there are more and more applications available from Apple, and OIT is not in the capacity to check which ones cause the problems with the network," Eshleman said.
Users to be able to 'friend' schools

INTERNET

Continued from page 1

Facebook is taking over academia ... although I'm not sure that older members of the academy fully understand why or if it's fun or "useful."'

JOSEPH HALL
[RESEARCH ASSOCIATE]

For students like Dinora Llamos '12, however, Princeton's new set of Facebook pages will fill the gap that the campus's official site may not provide. "I feel that if you're already interested in what the University is doing, this will not change that," she said. "I think it will give people an opportunity to stay informed."

This kind of communication may be a useful means of contact between the University and students.

"People are always on Facebook, and it's so much more efficient," Aparajita Das '12 said. "It's also a great way to stay in touch with the University and students."

"We should use this kind of communication to maintain transparency and promote dialogue among students, faculty, and staff," Llamos said. "It's a great tool for networking and staying connected with the University community."

Although Facebook is taking over academia, there are concerns about the impact on the University's reputation. "We need to be careful not to overuse Facebook and instead focus on maintaining a balance between online and offline communication," Hall said.

For students like Llamos, Facebook is not just a platform for networking, but also a way to stay informed about what's happening on campus. "I think it's important to have a presence on Facebook because it's where people are," she said. "It's a great way to stay connected with the University and keep up with what's happening."
UHS solicits videos on alcohol use for freshman orientation

By Lauren Christensen
STAFF WRITER

The Health Promotion and Wellness Services division of University Health Services (UHS) is holding a contest for original student videos that depict the social scene at Princeton and dispel myths about high-risk drinking on campus.

The division recently sent an e-mail to some students calling for submissions to its Social Scene Video Competition. The winning video will be included in the alcohol education program for the Class of 2013 as part of its orientation next fall and may also be featured on the Princeton University homepage, according to the contest guidelines.

The competition is open to submissions from all University students and student groups.

The video competition was designed to produce “a good peer-to-peer educational tool,” Director of Campus Life Initiatives Amy Campbell said in an e-mail.

Through these videos, current Princeton students will introduce incoming freshmen to the University’s social scene, and this will foster an environment of “students talking to other students about the social scene,” said Campbell.

Campbell also co-chairs the Alcohol Coalition Committee (ACC).

In past years, all incoming Princeton freshmen have been required to complete only the standard AlcoholEdu for College program, which is not tailored to the culture at Princeton. Including the presentation of a student-generated video about Princeton “will give us the ability to tailor a generic product into a more Princeton-specific product,” Campbell said.

“The University could have created its own introduction to AlcoholEdu for College, but we’re interested in students’ perspectives,” Campbell added. “This whole approach is in keeping with ACC’s approach of incorporating student voices.”

Next fall, freshmen will watch the video before completing the AlcoholEdu for General Education.

See CONTEST page 3

Film will preview social scene

CONTEST
Continued from page 1

College online program. The video, Campbell said, will ideally “focus on some of the themes we’ve found to be important, such as the importance of responsibility.”

On its website, UHS provides examples of such myths about the Princeton drinking culture that it hopes to disprove. It reports that, contrary to the assumption that “everyone at Princeton University drinks,” according to a 2008 survey of Princeton undergraduate students, 26.3 percent of students did not consume any alcohol in the past 30 days before they supplied their responses.

The winning video from this competition will be chosen to address misconceptions that incoming freshmen might have of the Princeton social scene.

The guidelines for submissions are relatively open-ended, to allow for creativity. Chris Chandler ’09, the student co-chair of the ACC, said, “I think that they left out ... specific suggestions in order to leave the competition open to interpretation, so that the creators of the videos would have the freedom to portray the social scene as they know it, and then the video which best represents the campus as a whole can be chosen,” Chandler said in an e-mail.

This video contest is the product of the efforts of the Education Working Group of the ACC, a group that includes students, faculty and administrators.

Because of the importance of eating clubs to Princeton’s social scene and drinking culture, the working group met with members of the Interclub Council (ICC).

“The ACC recognizes how central the eating clubs are to the Princeton social scene, and so it will probably be important to include information about the clubs in order to touch all the major points for a successful video,” Chandler explained.

“During development of the recommendation presented by the ACC to UHS, a member of the Education Working Group met with the Interclub Council to make sure the project would be of interest to the eating clubs,” Campbell added. “They were very supportive.”

ICC adviser Tim Frugis ’09 cited this student-generated video project as “a sign of UHS being very responsive to the concerns, complaints and observations of eating club presidents.”

For years now, the eating club presidents have been trying to draw attention to the fact that high-risk, on-campus drinking—particularly amongst freshmen and sophomores— is creating a medically unsafe, potentially disastrous situation at Princeton,” he said.

The deadline for students to submit their work is April 11. Campbell said that, while several students said they were interested in participating in the contest, there have not yet been any submissions.
Employees honored for dedication and service

Pamela McGough has been honored as a staff member in building help and service in 509 and transferred to the Office of Human Resources in 1984. She now administers the University's Mortgage Loan Program, providing support and guidance to many faculty and staff. McGough was described as "the embodiment of a professional employee" by Caroline Clancy, director of the mortgage program. "She has been an invaluable asset to the University that will be missed dearly." Clancy added, "She is an excellent representative of the University's dedication to excellence in service to others.

In addition to her professional contributions, McGough has been a member of the Princeton University Club and has served on various committees within the University. She has been instrumental in the development and implementation of several initiatives aimed at improving the quality of service to faculty and staff. Her dedication and service have earned her the recognition of her colleagues and peers throughout the University. It is fitting that she should be honored for her contributions.

Pamela McGough has been a model of service and dedication to Princeton University. Her commitment to excellence, her ability to work tirelessly, and her dedication to the mission of the University have been well known to all who have had the privilege of working with her. She is truly a beloved colleague and a valued member of the Princeton University community.

In conclusion, Pamela McGough's dedication and service have had a profound impact on the University. Her contributions have been significant and her legacy will be remembered with great fondness. The University is grateful for her service and wishes her all the best in her future endeavors.

Appendix B: IT News at Princeton

March 30, 2009, Princeton Weekly Bulletin

By the numbers

- 50 employees with 20 years of service
- 20 employees with 15 years of service
- 20 employees with 10 years of service

All employees received certificates of recognition and a special copper-engraved rendering of a Nassau Hall bell by Michael Greenberg, member of the Sigmund Professor of Architecture Emeritus. Those with 25 years received a special copper-engraved rendering of the University seal. Those with 30, 35, 40, and 45 years received a special copper-engraved rendering of the University seal, including jewelry, cufflinks, and a special copper-engraved rendering of the University seal.
Digital library of Islamic manuscripts now available online

Princeton has placed a new digital library of 200 Islamic manuscripts online for scholars to consult and study.

These manuscripts were selected from some 9,500 volumes of Islamic manuscripts in Arabic, Persian, Ottoman Turkish and other languages of the Muslim world in the University Library's Department of Rare Books and Special Collections. Princeton's extraordinary holdings constitute the premier collection in the Western Hemisphere and among the finest in the world, according to Don Skemer, curator of manuscripts.

The digital library is a major component of the Islamic Manuscripts Cataloging and Digitization Project, begun in 2005 with the generous support of the David A. Gardner '69 Magic Project. Eventually, all of the manuscripts will be cataloged online, which involves creating bibliographic records containing basic descriptive information that helps researchers decide whether to order microform copies or to visit the library in person.

"The Islamic Manuscripts Cataloging and Digitization Project was conceived specifically as a way for the library to improve access to these rich collections and share them worldwide through digital technology," Skemer said. "It is hoped that the project will make a contribution to international understanding and serve as a gesture of good will to a critical part of the world."

Michael Cook, the Class of 1943 University Professor of Near Eastern Studies and one of the leading Islamicists in America, said, "Princeton has 9,500 Islamic manuscripts in Arabic and other languages in a location that is very convenient for scholars based in North America, but far less so for those based in the Islamic world or Europe. Most of the collection is described in printed catalogs, and scholars can always obtain microfilms of the manuscripts available online in fine-quality digital images."

Approximately two-thirds of the manuscripts were donated to the University in 1942 by Robert Garrett, a member of Princeton's class of 1897. But the library has continued to build this collection since then.

The digitized manuscripts date from the early centuries of Islam until the fall of the Ottoman Empire. They originated in all parts of the Islamic world, from Moorish Spain and northern Africa in the West, through the Middle East, and to India and Indonesia in the East. Subject coverage is fairly encyclopedic, including history, biography, philosophy and logic, theology (based both on the Quran and tradition), law and jurisprudence, language, literature, book arts and illustration, magic and occult sciences, astrology, astronomy, mathematics, medicine, and other aspects of the spiritual and intellectual life of the Islamic world.

While the digital library emphasizes rare or unique texts of academic research interest, it also includes a selection of Persian illuminated manuscripts and Mughal miniatures, such as a magnificent 18th-century Indian album of miniatures and calligraphy.

Princeton expects to add more manuscripts to the digital library in the future, besides producing the online bibliographic descriptions.

For access to the digitized manuscripts, go to <library.princeton.edu/projects/islamic/index.html>. From this webpage, click on "View the Digital Library" and select any of the 200 manuscripts, which are listed both alphabetically and by subject and genre.

For more information about the project, contact Skemer at deskemer@princeton.edu."
USG aims to bring ‘culture shift’ with policy

CPUC

Continued from page 1.

The two groups are collaborating on an initiative to reduce library and cluster printing, with the ultimate goal of decreasing total student paper consumption by 20 percent — from 10.5 million to 8.5 million pages — by April 2010.

Students, who are permitted to print free of charge, were responsible for 20 percent of all printing at the University during the 2007 fiscal year.

“We’re ready to set a new standard for printing on this campus, and we hope the other 80 percent will be able to fall into place,” USG president Connor Diemand-Yauman ’10 said at the meeting.

In addition to the printing quota, the USG hopes to change the default settings on all cluster printers to print four pages per sheet with one-inch margins, Diemand-Yauman said. Currently, double-sided printing is standard on cluster computers.

“These new settings would cut the number of pages in half,” he noted. “This will be a new standard, the new benchmark, the new normal.”

Last year, the University purchased a total of 53 million pages of paper. Stacked, this amount of paper would reach nearly two miles into the sky or cover an area of more than 800 acres.

Student printing has been steadily going up over the last five years,” OIT director Steven Sather said. “Each year we’re looking at an addition of — in a good year — 5 percent to over 15 percent (in a bad year).”

Central to the plan aimed at counteracting unnecessary paper use is the implementation of a printing quota of 3,000 pages per student, Diemand-Yauman said. Last year, the average number of pages printed by an individual student was 1,291, with a standard deviation of 1,446, Sather said.

“If we enact a 3,000-page quota, that will affect less than 10 percent of the student body,” Diemand-Yauman said. “That’s 1.1 meters of paper just by controlling those outliers.”

U-Councilor Brian No ’10, who serves on the USG’s sustainability committee, said the University’s existing technology could be used to enforce the quota since print release stations can be programmed to cap student printing.

But OIT and USG are also concerned that the proposed policy might have some negative impacts.

“If we set a limit on 1,500 sheets of paper, that’s actually well above the mean of what people print,” Sather said. “But if everybody says, ‘Oh, I can print up to 1,500 pieces of paper,’ we would actually drive up the printing on campus by 25 percent.”

Different paper quotas would apply to various subsets of the University community, including undergraduates of different class years, graduate students, faculty and staff, Sather said. The policy would also allow faculty members to allocate additional printing allowances beyond the quota.

No said that some students have legitimate reasons to exceed the quota, especially upperclassmen working on junior papers and senior theses. “It would be stupid to tell a junior who has reached his cap that he can’t print out his BE,” No said in an e-mail. “For exceptions to the cap, we hope to establish some sort of centralized, efficient process so that students can request a higher printing ceiling.”

USG and OIT are also working to install PDF annotation software on all laptops sold through the University and cluster computers. The software would allow note-taking directly on PDF documents, eliminating the need to print documents, Diemand-Yauman explained.

To increase awareness of the initiative, the USG is planning to circulate a Student Sustainability Pledge, he said. The pledge will encourage students to make minor lifestyle chang-
Printing costs should cost us

This semester Princeton students are, as usual, printing pages at a staggering rate. Recognizing the costs of using so much paper so quickly, the Office of Information Technology (OIT) has encouraged conservation by programming print stations to indicate how many pages a student has printed and by sending e-mails to chide those who print an unusually large amount. While this board has endorsed these measures as useful first steps, calls for voluntary cooperation are ultimately insufficient to change student behavior. As a result, if the University is serious about pursuing conservation, a new policy is needed.

In reducing unnecessary printing, one possible policy change is to set a quota of pages that each student could print (such as OIT’s proposed 3,000 pages), while allowing a student to apply for an extension should he or she require more printing.

Such a system would have the benefit of saving more pages than the voluntary status quo, since, if nothing else, those who print a great deal would need to go through the inconvenience of requesting more pages. That said, this model is also significantly limited, since it does not encourage conservation by those who fall under the quota and would require administrators to spend time and energy reviewing many print applications each term.

With this in mind, a more promising option is to make students pay for each page printed. This model, embraced by most of America’s other top schools, would create an incentive for each and every student to print carefully, regardless of how many pages that individual prints in the term. By attaching real costs to printing, even if only one cent per page, Princeton would create a powerful psychological barrier to promiscuous printing. Additionally, by coupling such a plan with a reduction in the housing fees currently used to pay for printing, the University could allay concerns that such a plan might put students at an economic disadvantage. Average printing costs would also be factored into students’ total estimated expenses when calculating financial aid awards.

In implementing such a system, the simplest possibility would be to link printing stations directly to student accounts, billing printing charges on a monthly basis. Alternatively, Princeton could extend the system currently used for photocopying to printing: Students would deposit funds into their PAW Points accounts, and funds would be deducted with each page printed. As yet another possibility, Princeton could issue printing cards to each student and require individuals to put money on them before printing. Either of these declining-balance systems would combine economic incentives with time-cost incentives, as many students would conserve in order to avoid the hassle of putting additional money on their cards.

To be clear, it is important that educational concerns come first regarding the student body’s ability to print pages for class. But attaching real costs to printing will minimally affect the majority of students: The effects will fall predominantly on those who print disproportionately. Regardless of what model is adopted, however, pay-per-page represents an excellent way to transform our printing policy from paper tiger to persuasive deterrent.
April 7, 2009, The Daily Princetonian

‘Tweeting’ Tigers

By Tasnim Shamma
SENIOR WRITER

At 2:46 A.M. on April 3, politics professor Melissa Harris-Lacewell tweeted to Kyle Carone ’09, “omg! Go to sleep already!” after he wrote on his twitter.com profile that the 165-page thesis he had just finished would make for great reading on her plane ride to Cape Town, South Africa.

The microblogging format of Twitter—which has become increasingly popular on campus—may bring administrators and faculty members like Harris-Lacewell closer to students, as they divulge personal details of their lives in an informal setting.

With an estimated 5 million users, Twitter is the third largest online social network, after facebook.com and myspace.com. On the website, founded in 2006, users can post messages of up to 140 characters that are listed on the site’s public timeline. Users can also choose to “follow” the posts, or “tweets” of other Twitterers.

Lacewell, a regular commentator on MSNBC, sometimes directs tweets at Rachel Maddow or informs followers of her television appearances.

“I disagreed with Paul Krugman on CNN this morning. What was I thinking? I’d had no coffee. Was delirious. I apologize. The man has Nobel!” she tweeted on March 24.

Wilson School professor and New York Times columnist Paul Krugman also has a Twitter account with roughly 5,000 followers.

Last month, the Office of Communications took over the Princeton University Twitter account. It has acquired 95 followers, paling in comparison to the accounts run by Stanford, Cornell, Harvard and other elite universities, which boast up to two or three times that number of followers.

Communications director Lauren Robinson-Brown ’95 said Twitter posts from the communications office are less formal than updates on the University homepage, adding that the University only “follows” other University offices and departments.

“Trends platforms by nature are social and therefore much more casual than the official news that we manage,” she said. “We intend to adopt a casual style so that the intended audiences will find the information we post relevant.”

Guidelines for individual department Twitter accounts are currently being developed by the University. Robinson-Brown said, noting that the University does not monitor employee Twitter accounts.

“Professors should be constrained as little as possible,” Center for Information Technology Policy associate director David Robinson ’04 said.

“Obviously, if professors want to use Twitter or blogging or Morse code, the University should be totally fine with that,” he said. “Even the staff who speak for the University as a whole should have See INTERNET page 2

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Students and faculty connect through microblogging

INTERNET

Famous Twitterers

Many politicians, including President Obama, have accumulated hundreds of thousands of followers on Twitter,
and use the tool to let their fans know when and where events are being held.

Meg Whitman, 77, who announced her bid for the California governorship two months ago, has used her Twitter profile, “Whitman40,” to link to articles written about her and provide updates about her life — both on and off the campaign.

No campaign activities today. My son arriving with 30 members of his rugby team — 6 staying with us. Lots of games this week. Should be fun! Whitman posted on her profile last month from her BlackBerry.

Sean “Diddy” Combs, an American rapper, is ranked among the top 20 Twitterers, with more than 600,000 followers. Other profiles in the top 20 include CNN, the Times, Britney Spears, Barack Obama, former vice president Al Gore and Coldplay.

Combs, who has the username of “wamyboys,” regularly posts about his day-to-day life, parties and other famous artists.

On April 4, Combs wrote, “Happy Saturday everyone! Drinking corn snacks and watching some FHM! Hey it’s Saturday and I’m a hipster. What can I say? Lol.”

News outlets and institutions like Princeton, however, have found more serious applications for Twitter.

During the 2008 Mumbai attacks, the Times reported that tweets about Mumbai were being published at a rate faster than one message per second. Many of the tweets were being posted from cell phones of journalists and citizens at the scene of the attacks.

Robinson said he uses Twitter as a professional tool, adding that he considered it to be a sort of “meta-application.”

“I didn’t study technology, I probably wouldn’t be a Twitter member,” Robinson said. “The irony of the technology is that a very high fraction of users are people who study or work in technology. A lot of the content on Twitter is about Twitter, which does not bode well for Twitter.”

Robinson added that he uses Facebook, which he considers to be more versatile, to communicate with friends and mainly uses Twitter to share links to interesting articles.

Dean of the Faculty David Dobkin recently had a meal of Scotch and bagels and prefers Tequila to the number “pi,” according to his Twitter feed.

Dobkin said he joined the site a few months ago to understand how tools like Twitter affect social interaction.

“I have been a member of Facebook for the past four years and have watched it grow and change over time,” he explained. “I hope to be able to do the same with Twitter as it will inform some of the discussion I lead in WWS 551 (The Internet and Public Policy) that I teach.”

Dobkin noted that that it initially took some time for him to feel like an “active member” of Facebook because most of the other users belonged to a different generation.

“Recently, that has changed as the membership of Facebook has broadened,” he explained. “Twitter is still in the place where few of my peers are active, so my use of it has been limited. I expect that will change, but I’m not sure when.”

Student uses

Robinson said it was difficult to estimate how many Princetonians use Twitter but noted that between one quarter and one third of his friends use the site.

Schafer Softy ‘11 said she thought most Princetonians who used the site were seniors, adding that roughly 50 of her friends have Twitter profiles.

She noted that it took time for her to adjust to the site. Though she initially used it to receive news updates or find out about online trends, she now uses it once or twice per day to update friends on what she is doing or thinking, she said.

“The concept was weird at first, since it seemed like it was just a collection of Facebook status updates,” Softy said. “Now I’ve connected it to my Facebook profile and blog, and I use it to connect with friends and follow my favorite blogs.”

Susan Lyon ’09 estimated that there are between 50 and 100 Princeton Twitterers and that the number was “growing quickly.” She explained that she joined Twitter recently as a procrastination tool during midterm exams.

Robinson said he thought Twitter served primarily as a distraction for most of the site’s users.

“On the long run, the real thing that’s strange on the Internet is attention,” he explained. “We can’t generate more time and attention, and I think that Twitter can be an interruption and distraction.”

Robinson added that he thought human psychology would probably play a large role in the site’s continued success.

“Clearly, there’s some pattern of people wanting to confess and display and reveal what their thoughts,” he said. “I think it’s an interesting and deeply human phenomenon.”
By Melissa Longinger

In an effort to cut costs, the administration will evaluate the feasibility of eliminating or reducing the use of print materials and explore publishing documents online instead of in print, according to the Harvard Crimson.

The Daily Princetonian's IT News at Princeton column this week continues

U. to explore publishing documents online instead of in print

OIT pushes to reduce paper use on campus

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Donald Weston said in an e-mail that Princeton is considering forgoing publishing certain documents in paper form altogether. The University's Cost Cutting Working Group is contemplating a recommendation that items such as newsletters and pamphlets be made available online exclusively, he said.

But the University does not yet have concrete plans about which paper publications, if any, will be eliminated, Malkiel said.

Publications issued by the University include the 549-page Undergraduate Announcements and "Quintessentially Princeton," a 212-page compilation of pieces describing past senior theses that was distributed to members of the junior class this week.

Students expressed mixed opinions about a switch to web-only course catalogs and University documentation. Ruthie Nachmany '12 said that she finds print copies of University materials unnecessary because she reads everything online anyway.

"All the stuff we get at the beginning of the year... I just put it in a file," she said. "I never really looked at Rights, Rules, [Responsible]."

Stephen Pollard '12, however, said that printing documents like the course catalog on paper is essential.

"I like to circle courses that I'm interested in or certain programs, perhaps certificate programs," he explained. "I like to mark in the books. I like that instead of having to copy and paste from the website."

Still, there are substantial environmental benefits to printing less, Forbes College director of studies and Sustainability Committee member Patrick Cadieux said, adding that he "would love to see Princeton reduce paper printing and continue to expand the online publication of documents."
April 20, 2009, The Daily Princetonian

It's hard to sit through a meeting or go to a lecture these days without seeing someone lovingly stroking an iPhone, perhaps researching something virtually important or (much more likely) reading e-mail or playing a game. The iPhone was always a sexy toy, but it's become the geeky tool of choice, even for people who are far from geeky.

Iphone owners always have a new toy to show off, some cheap or even free program they got from Apple's App Store. Some are pointless but amusing, like the one that pours a glass of beer as you tilt the phone. Some are fun games. Some are useful, like the ones that help navigate from here to anywhere. And some are simply remarkable.

In my class few weeks ago, part of the lecture was to be about Django, a software system that makes it comparatively easy to build web applications. Django is named (for no reason known to me) after Django Reinhardt, the gypsy jazz guitarist of the 1920's and 40s. Thus my musical selection of the day was some of Reinhardt's music. As the CD was playing, one of the students in the class pulled out her iPhone and 30 seconds later showed me that Shazam, a free iPhone program, had found the album I was playing, complete with artwork, and Amazon was offering to sell it to me.

Arthur Clarke's famous Third Law says, "Any sufficiently advanced technology is indistinguishable from magic." Shazam is not magic: The various technological pieces are straightforward, though the specific algorithm that can so efficiently identify one tune out of millions surely qualifies as advanced technology. Some deplore the whole thing with comments like "It's not really very good at classical music." True enough, but viewed more generously, it's nothing short of astonishing.

A couple of weeks earlier, a friend from Google aimed his Android phone at the barcode on the back of a book in my office and a few seconds later showed me the web page where Amazon (again) offered to let me read pages in the book and of course to buy a copy. We can see where this is going. Pictures of landmarks? Of items in a store? Of famous people? Of ordinary people like you and me? No problem. Camera phones, universal connectivity and powerful central computing services working off huge databases are going to make such apparent miracles routine.

What does it take to create such systems? Phone applications sit upon a huge library of supporting software, of course; no one starts from the bare hardware, so we really are standing on the shoulders of giants, at least a myriad of helpful programmers who have gone before. But the other thing is that the companies that sell the phones—Apple, Google (indirectly) and others—have provided enough entrée to their systems that anyone with some programming expertise and a bright idea can create something new that will make the phone even more appealing. This open environment unleashes the creativity of thousands of people. Some ideas are brighter than others, but no matter what, there are far more good ideas than Apple or Google could have produced on their own. A thousand flowers can bloom, and some of them will be beautiful.

I'm not sure whether opening up the programming interface was entirely public-spirited on Apple's part, but with the threat of Android, an open platform with Google muscle behind it, things did open up, and today it's quite possible to build interesting software fairly quickly for iPhones and Androids. Google came a bit late to this party and is definitely playing catch-up. The first Android phone seems chunky next to the iPhone, though it has a real keyboard, not a simulated one, and it has a few tricks that the iPhone hasn't yet managed, like a neat integration with Google's Street View, so you can look around a location by turning the phone or yourself.

There were two phone projects in my class last spring, but it was early days, the development systems were rough, and writing code was hard going. In spite of that, the projects were very good, and one was so successful that a couple of the students who built it are selling it on the App Store. This year the development systems from Apple and Google are more polished and stable. I have half a dozen projects in the class and two JPs devoted to phone systems. The majority are iPhone-based, but a couple are using Android, with phones donated by Google. For sure there will be some winners this time, too.

I kid my students about endowing a chair when they become rich and famous, but the real reward is watching enthusiastic and creative people convert dumb devices into smart ones. That really is indistinguishable from magic.

Brian Kernighan GS '69 is a computer science professor and a Forbes faculty adviser. He can be reached at bkernighan@princeton.edu.
Web Stories

Sustainability projects funded through High Meadows gift

Posted April 28, 2009, 12:58 p.m.

by Ruth Stevens

The second round of initiatives seeking to improve sustainability on Princeton’s campus have been funded under the auspices of the University’s Sustainability Plan.

Supported by a gift from the High Meadows Foundation, the 16 projects range from a study of the impact of land use and sustainable practices on a regional watershed to an analysis of campus pathway lighting and recommendations for sustainable designs.

Last year, nine requests were funded as part of the research, education and civic engagement section of the Sustainability Plan that was announced in February 2008. The High Meadows Foundation gift of term funds over four years was given to fund initiatives that support goals set forth in that section of the plan. It is one of the plan’s three main areas along with greenhouse gas emissions reduction and resource conservation.

Co-founders and trustees of the High Meadows Foundation are Carl Ferenbach, a 1964 Princeton graduate who is a member of the University’s Board of Trustees, and his wife, Judy. Funding requests were evaluated by review panels of the Princeton Sustainability Committee using a formal request for proposal process.

Projects funded from the fiscal year 2009 budget are:

Education and research initiatives

• The Princeton Environmental Institute will track the impact of land use and sustainable practices on a regional watershed. The three-year study will be funded to address the effect of the campus on Lake Carnegie water quality. The project includes an in-depth comparative academic study of the renovated Butler College complex, which opens this fall and has both green roofs and conventional roofs. The project director is Eileen Zerba, senior lecturer in ecology and evolutionary biology. Last year, Zerba received High Meadows funding to complete water depth and chemical and biological profiles on Lake Carnegie and compile them into a readily accessible computer database.

• The Department of Civil and Environmental Engineering will receive two years of funding to look at the mitigation of nitrogen runoff from the campus. A study will address the enhancement of campus stormwater detention basins for improvement in this area. The project director is Peter Jaffee, professor of civil and environmental engineering.

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• The Program in Science, Technology and Environmental Policy will receive funding to undertake a two-year project to examine the influence of present and potential future emissions of air pollutants on global air quality, human health and climate change. It also will explore possible policy mechanisms for mitigating harmful emissions. The project director is Denise Mauzerall, professor of civil and environmental engineering and public and international affairs.

• The Program in Environmental Studies will receive one year of funding to refine existing courses and create new courses to meet increasing student demand for classes focused on sustainable food systems and their role in addressing global challenges. The funding is contingent on departmental course approval. The project director is Xenia Morin, lecturer in the Princeton Writing Program and the Princeton Environmental Institute.

• The Department of Civil and Environmental Engineering will undertake a two-year project to deploy a wireless environmental sensor network over the Princeton campus and develop a new generation of trace gas sensors. The devices are intended to provide information about environmental conditions over the monitored area, including building energy use, water flux and surface flux of carbon dioxide. The project director is Elie Bou-Zeid, assistant professor of civil and environmental engineering.

• The School of Architecture will receive funding for a one-year student project titled "EcoRedux: Design Remedies for a Dying Planet; Educational Web Resources." The project, accompanied by an exhibition that opened in December 2008 in Athens, Greece, will document the disciplinary transformation of sustainable architectural design originating in the 1960s. The project directors are graduate students Lydia Kallipoliti and Alicia Imperiale.

Civic engagement initiatives

• A team of students in the School of Architecture has received funding to work with the facilities department to collect data during the summer of 2009 about the existing campus pathway lighting. At the same time, the team will develop alternative designs for illumination that embrace sustainable technology. The project director is Paul Lewis, assistant professor of architecture.

• The Office of Information Technology will undertake a project titled "Toward Print-Less and Paper-Less Courses: Pilot Amazon Kindle Program." To encourage students to work with documents online rather than rely on printing, the University will collaborate with Amazon to conduct a pilot project to test the effectiveness of Kindle, a wireless reading device. Readings for three courses will be loaded on Kindles. The project directors are Serge Goldstein, associate chief information officer and director of academic services, and Steven Sather, associate chief information officer and director of support services.

• For the second consecutive year, the Office of Sustainability will provide intensive summer training for students who want to contribute to the Student Environmental Communication Network. The five-week course will teach students to explore pressing issues in sustainability through audio and video production. The project director is Shana Weber, manager of the Office of Sustainability.

• Outdoor Action also has received a second year of funding toward its goal of becoming more sustainable, both on and off the trail. The experiential learning program for entering freshmen held each fall before the start of classes will continue to disseminate sustainability information to more than 900 students

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annually. Last year, the funding provided the support to research and develop a sustainability curriculum for Outdoor Action leaders. The project director is Rick Curtis, director of Outdoor Action.

- Forbes Garden Project, a student initiative to implement **sustainable food systems programs**, will receive a second year of funding. The garden expanded onto a new location last year at 79 Alexander St. with a larger demonstration garden plot. The garden now features 2,500 square feet of growing beds, a food washing and preparation area, and seating for gatherings and events. The project directors are undergraduates Ruthie Schwab and Elena Dillard.

- The Greening Princeton Farmers Market will receive a second year of funding to generate publicity and cover other operating expenses through fall 2009. Launched in fall 2007, it is considered the **first 100 percent student-run local farmers market** in the country. It provides members of the University and local communities with an opportunity to purchase fresh locally grown produce and other goods from area farmers and businesses that use sustainable practices. The project directors are undergraduates Ruthie Schwab, Stephanie Hill and Emma Hare.

- The Department of Chemical Engineering will receive support for a one-day **sustainability conference featuring Princeton research**. This fall 2009 conference is intended to increase awareness and unite an interdisciplinary sustainability movement at Princeton by focusing on sustainable research, specifically in the realms of technology, policy, ethics and economics. The project directors are graduate students Nathalie Pinkerton and Joseph Roy-Mayhew.

- The Office of Sustainability will receive funding for continued internships in areas including **communicating sustainability, bike and pedestrian initiatives, Web development, energy solutions research, sustainability metrics research, Princeton Environmental Network coordination** and others. The project director is Shana Weber, manager of the Office of Sustainability.

- The School of Engineering and Applied Science's Office of Communications will receive funding to produce a library of **student-generated videos** to document its current contributions toward a sustainable world. The videos will demonstrate cutting-edge research in energy technologies and conservation efforts aimed at retrofitting aging systems as well as show how the school is preparing a new generation of engineers to play a leadership role in the future of sustainability by teaching them how to explain technology in broadly accessible terms. The project director is Teresa Riordan, senior new media editor in the school.

- Students United for a Responsible Global Environment (SURGE) has received funds to attend PowerShift 2009 in Washington, D.C., in February. Some 50 Princeton students participated in three days of conferences, presentations and leadership training in an effort to **impact climate change legislation**. The project director is undergraduate Danny Growald.

Faculty, students and staff interested in applying for High Meadows funding should visit the Office of Sustainability website or contact Shana Weber, sustainability manager, at sustain@princeton.edu or (609) 258-1518.
Current Stories

OIT tests Amazon's Kindle e-reader in sustainability effort

Posted May 6, 2009; 12:39 p.m.

by Cass Chatt

Princeton’s Office of Information Technology (OIT) and the Princeton University Library are working with Amazon’s Kindle DX electronic reader in a pilot project to study if using an electronic reader can reduce the use of paper at Princeton while preserving the benefits of the traditional classroom experience.

In the project titled "Toward Print-Less and Paper-Less Courses: Pilot Amazon Kindle Program," a small number of classes in the fall will use Amazon’s wireless e-readers for their course materials. Readings for three courses will be loaded on Kindles. Several courses are under review for the pilot project, and the selections will be announced in the fall.

Participating students and faculty members in the selected courses will receive a free device that they may keep. The project is being supported by a gift from the High Meadows Foundation and falls under the University’s Sustainability Plan.

At the end of the pilot project, OIT will assess what effects the readers have had on reducing printing and on teaching and learning in the selected courses. The results of that assessment will be made public at the end of the pilot project.

OIT has developed a website to provide information about the goals and logistics of the pilot e-reader project.

Princeton is one of six colleges and universities participating in the project, joining Arizona State University, Case Western Reserve University, Reed College and Darden School of Business at the University of Virginia. Princeton’s project directors are Serge Goldstein, associate chief information officer and director of academic services, and Steven Sather, associate chief information officer and director of support services.

The Amazon Kindle pilot project is sponsored by OIT, Princeton University Library and the High Meadows Foundation. The High Meadows Foundation gift of term funds over four years was given to fund initiatives that support goals set forth in the "Research, education and civic engagement” section of the University’s Sustainability Plan, which was announced in February of last year. It is one of the plan’s three main areas, along with greenhouse gas emissions reduction and resource conservation.

Co-founders and trustees of the High Meadows Foundation are Carl Ferenbach, a 1964 Princeton graduate who is a member of the University’s Board of Trustees, and his wife, Judy. Funding requests were evaluated by review panels of the Princeton Sustainability Committee using a formal request for proposal process.
U. will distribute Kindles in fall

TECHNOLOGY

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the amount of electronic-reserve course materials that students print.

"Over 30 million pages were printed in cluster printers last year," OIT director of academic services Serge Goldstein said, adding that "a lot of that is students printing e-reserves." He emphasized that the other schools partnering with Amazon were more focused on providing students with textbooks on the e-readers rather than reducing paper use on campus.

"These devices have a screen technology that is really designed to optimize the reading experience," Goldstein said, adding that students print e-reserves rather than read them on their computers because "laptop screens are not designed for supporting lots of reading."

Housed in a thin, white frame, the Kindle DX offers several improvements over the current version — the Kindle 2 — including a larger display that measures 9.7 inches across and PDF reading capability, which will allow students to read e-reserves scanned by the library. The device can hold up to 3,000 books, and users can download texts from Amazon’s online store via a wireless connection.

The new version will cost $490, compared to $350 for the Kindle 2.

With the devices provided by the pilot program, called "Toward Print-Less and Paper-Less Courses: Pilot Amazon Kindle Program," students will be able to search and annotate their readings, Goldstein said.

"We are going to be working with the library to scan material in Optical Character Recognition form," he explained. Because the documents will be in this form, students will be able to annotate them using the Kindle’s keyboard and five-way controller, which acts like a joystick.

"Most of the material will be flowable text," Goldstein added. "It’s actual electronic text. You can actually search it."

Still, the e-reader’s annotation capabilities may pose a challenge to students, Goldstein said, explaining, "We think that annotating on paper is easier." He also noted that paging through paper documents is much quicker than perusing those texts on the Kindle because there is a short delay before the next page can be displayed on the device.

"A whole bunch of things we’ll find to be problematic," Goldstein said of possible disadvantages of the console. "There are no perfect devices out there yet."

While talks of a pilot program began two years ago, when Amazon first approached the University, the current project didn’t fully materialize until six months ago, when Amazon decided to proceed with the program. Goldstein said, adding that $30,000 of funding for the project will come from the High Meadow Sustainability Fund, which was founded by Carl Penrubbach ’64. Amazon will match the amount donated by the fund.

"We believe we can support about 50 or so students plus the faculty and a few staff who also need the device ... about 60 devices in all," Goldstein said.

Janet Temos, the director of the Educational Technologies Center at OIT, said she expected Amazon would expand its online coursebook offerings.

"I know they're working on that," she said. "It’s an unspoken part of the agreement."

Once the book lists for the three selected courses are finalized, the University will also send a list of texts to Amazon so the company can make the textbooks available for download through the Kindle Store, Goldstein said.

Students who find the Kindle a poor substitute for their course materials will still be permitted to print e-reserve documents.

"We don’t force technology on people because we think it’s cool or bleeding edge," Temos said. "If it turns out that it’s not working, we’ll abandon it."

The three courses that will use Kindles next fall will be announced by the end of the month, Goldstein said, adding that the University chose to wait until after course registration closed to make the announcement.

"We didn’t want students signing up for classes just to get a Kindle," he explained.

History professor Anthony Grafton, who researches the history of books and currently uses a Kindle 2, said he thought the program was "little premature."

"The selection of books actually available on the Kindle is not very impressive," he said. "I do think they will need to do some work on what’s available before it’s totally satisfactory."

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Referendum results counted incorrectly

Jin ’11 steps down as USG senior elections manager

By Omar Carrillo

The USG accidentally released incorrect results for the referendum which posed questions about student opinion on University administrators, University spokeswoman Emily Claitt ’96 said in an e-mail to The Daily Princetonian. Following the discovery of this error, Sophie Jin ’11 has resigned as senior elections manager due to “a disconcerting mix of hostility and apathy surrounding USG elections,” she said in an e-mail. She has been replaced by Addie Darling ’12.

No candidate elections were affected by the vote tabulation error, Claitt explained, but the released results for all four questions on the referendum submitted by Kyle Smith ’09 were incorrect.

“The program that counts votes expected the assigned selection by each voter to be in ascending order, but the reverse was the case,” Claitt explained. “While the program expected that a value of 1 in a yes-no question would be yes, in actuality the value was supposed to mean no.”

The USG has not yet released the corrected results for the referendum, but Darling said it expects to announce those numbers by Dean’s Day.

Smith said that, after he noticed vast differences from last year in the responses to the referendum questions, he asked USG president Connor Diemand-Yauman ’09 for the responses broken down by class year. Diemand-Yauman then referred him to Jin, who is also a senior photographer for The Daily Princetonian.

After not hearing from USG representatives for some time, Smith said he e-mailed them again and received a response from Jin that said, “Something unexpected came up with the ballot formatting that affects the results of your referendum.”

Claitt confirmed that the problem was discovered by officials from the Office of Information Technology (OIT) and reported to Jin.

“After the problem was discovered, OIT’s technician responsible for the application went into the database and changed all existing y values to n for all four parts of Referendum 3, then all 0 values to 1,” Claitt explained. “These results will be now be re-certified by the Office of the Registrar.”

Diemand-Yauman said the errors were

ELECTIONS

Corrected results to be released shortly

Continued from page 1

“outside of the USG’s hands” and referred all questions to OIT.

“The problem really demonstrates the need to have an updated and thoroughly tested election process in place for future elections, which has been the subject of continuing talks between OIT and the USG,” Claitt said. “And in fact, progress is being made on this front,” she added, explaining that OIT and the USG are working together on designing new election software in a project sponsored by the Office of the Dean of Undergraduate Students.

“The goal is to eliminate any possibility of a similar problem arising in the future and to ensure a secure system,” Claitt said.

Last week, the USG released election results showing that student approval of University administrators had risen dramatically since last year. According to those incorrect results, 68 percent of the more than 2,900 students who responded said they approve or strongly approve of “the way top-level administrators ... have been running Princeton.”

These responses showed an apparent increase in student approval of the administration from last year, when Smith’s referendum also appeared on the spring elections ballot. In 2008, 43.6 percent of the nearly 1,900 students who participated said that they approved or strongly approved of how top administrators managed the University.

The reported results this year stated that 51 percent of students in this year’s election said they believe the “major decisions” those administrators have made in recent years have “led to an improvement in the overall quality of student life at Princeton,” but last year only 21 percent of student voters said they thought this was the case.

And according to the reported results this year, a full 75 percent said they feel top-level administrators “listen to student input while creating substantial campus policies.” Last year, only 48 percent of students who responded said they thought the administration listened to student concerns.
Packing up my

The “suitcase” application creates a .zip file to download, so there’s no opportunity to live through your e-mail life like Benjamin Button. It’s the sort of packing up that involves no packing.

E-mails from old teachers and old friends from before Princeton, appearing much more prominently in the first 100 messages than in the last 500.

If I wanted to be morbid, I could compare the experience to watching my life, or at least my Princeton life, flash before my eyes. Whatever it was, it was fun, and nothing like packing. For a while, I got all my e-mails in duplicate. They would appear in my old webmail inbox and in the Gmail one, and then OIT came in, like my room, and told me it was time to pack — they even offered to do it for me. Once again, I backed up my Princeton e-mail. It went much more quickly with OIT than it did with Gmail, just a matter of hours rather than a matter of days.

I didn’t think anything of it at first. The “Suitcase” application that “packs up” your e-mail just creates a .zip file to download, so there’s no opportunity to live through your e-mail life like Benjamin Button. It’s the sort of packing up that involves no packing, so in theory, it’s a dream come true. Except of course, that it’s not, because now that OIT has packed up my e-mail, all my incoming messages skip the inbox. Unlike my room, my Princeton webmail is empty and un-lived-in, and its suddenness in a way that bare walls aren’t, because while I’ve packed my room up many times before, I’ve never done it with e-mail, and in some ways, my e-mail account captures my life more than my room does.

My new-bare inbox has made real to me the fact that it’s time to leave in ways that handing in the thesis, or even my comprehensive exams, has not. The emptiness is more than a little distressing. Nonetheless, it isn’t a tragedy; I’ve learned something. The only thing worse than packing up your life is having someone else pack it up for you, because it robs you of the opportunity to take inventory of your experience. So this year, as I pack up my dorm room for the last time, I think I’ll take more care as I round up the things I’ve collected over the years and say goodbye to the drawers that have stored them. And who knows? I might even start packing ahead of schedule!

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June 10, 2009

**Princeton Alumni Association Introduces iPhone-Friendly Web Site**

Princeton University alumni didn’t have to search for information about last month’s reunions weekend. There’s an app for that.

Thanks to a new iPhone-friendly Web site developed by the university’s information-technology office, alumni celebrating class reunions at the university’s campus this year could access event schedules, maps, and news alerts on iPhones and other smartphones.

The site is believed to be the first of its kind for a college or university reunion, said Andrew Gossen, senior associate director for the university’s Alumni Association.

Mr. Gossen, who is a 1993 Princeton graduate, said the site attracted 1,590 unique visitors and 15,368 page views during the weeklong event, which typically attracts 9,000 Princeton alumni and 20,000 total visitors to the campus. Graduating seniors as well as alumni from classes as early as the 1970s used the site. The most popular features included event schedules, hotel information, and a global-positioning system that tracked campus shuttle buses.

The introduction of the site also coincided with the event’s 150th anniversary.

“I think the alumni are into that, being able to mark this kind of an anniversary with a new concept like this,” Mr. Gossen said. “We like the statement it makes about the potential to incorporate new technologies into longstanding traditions.”

Building and publishing the application, called Reunions 2009, cost around $7,000, Mr. Gossen said. That’s far less than the cost of paper brochures that he said could contain as many as 52 pages each. Printing about 9,500 copies of those brochures each year costs nearly $10,000.

A number of other factors played into the decision to develop a version of the site for cell phones Mr. Gossen said, including several studies that indicated that smartphones will account for 23 percent of all new handsets sold per year by 2013.

While Mr. Gossen said the university isn’t ready for reunions-weekend information to make a full leap to mobile yet, over the next few years it will gauge whether going paperless is possible.

—Erica R. Hendry
Crews are putting the final interior finishes and landscaping in place at Butler College this summer heading into the fall opening of the newly reconstructed residential college. This courtyard consists of an amphitheater and landscaping that is irrigated by a stormwater cistern. Other sustainable features include green roofs on 50 percent of the college’s buildings.

Photos: Denise Applewhite

Featured Story

Streicker Bridge begins to rise amid summer construction

Posted June 22, 2009; 09:18 a.m.

by Eric Quiñones

From the June 15, 2009, Princeton Weekly Bulletin

The framework of the new pedestrian bridge spanning Washington Road will emerge as part of a series of summer construction projects that also includes continued progress on the new Chemistry Building and the completion of the Butler College renovation.

Anne St. Mauro, assistant vice president for facilities-design and construction, provided an update on the summer slate of projects:

Streicker Bridge -- The bridge connecting the two sides of the science neighborhood already is beginning to take shape, as crews are erecting the formwork to support the concrete arches that will make up the

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pedestrian walkway. By summer's end, the concrete for the arches will be poured and the slender metal pipe arch that supports the walkway -- intended to represent a gateway into the campus and the community -- will be installed. To accommodate this work, Washington Road will be closed from Faculty Road to Ivy Lane from 8 p.m. Friday to 6 a.m. Monday June 26-29, July 10-13 and July 17-20. Streicker Bridge, which spans 300 feet, is expected to be completed in fall 2010 in conjunction with the new Chemistry Building. On the west side of the bridge site, work is taking place to prepare for a tunnel connecting the Icahn Laboratory with the planned Neuroscience and Psychology Buildings, which are in the design phase.

Chemistry Building -- The installation of the new Chemistry Building's glass and aluminum façades -- currently about 80 percent done -- will be completed this summer and will be followed by exterior finishing work. Piping and electrical work also is a main focus of summer activity. In addition, crews will focus on improving the sites around the entrance to a tunnel that has been built to connect the new Chemistry Building with Jadwin Hall, as well as around the plaza that will serve as the eastern entrance to Streicker Bridge. Occupants of the 263,000-square-foot Chemistry Building, which is located at the former Armory site, are expected to begin moving in late fall 2010.

Butler College -- Final interior finishes and landscaping will occupy crews this summer heading into the fall opening of the newly reconstructed residential college. Green roofs have been planted on 50 percent of the college's buildings. The renovation of Butler College is the final phase of the University's transition to the four-year residential college system. Five dormitories were demolished in summer 2007 to begin converting Butler from a two-year to a four-year college housing undergraduates from all years as well as graduate students.

Wilcox and Wu halls -- Tying into the Butler College reconstruction, crews will demolish the serveries and kitchen in neighboring Wilson College's Wilcox Hall, then rebuild them to connect with Butler's Wu Hall and create a combined servery for the two colleges. Construction of a new entry to Wilcox, with a stair tower and elevator, on Goheen Walk on the building's south side will be completed this summer.

Fields Center -- After a year of major construction, crews will complete exterior and interior finishes at the former Elm Club at 58 Prospect Ave., which will house the Fields Center for Equality and Cultural Understanding and Community House. The new tenants will move into the space in August for the beginning of the fall semester. The new site features a restoration of the former eating

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club to its original 1906 look, a full interior renovation and a 5,000-square-foot addition.

**Campus Club** — The former eating club is expected to reopen this fall as a community space primarily for undergraduate and graduate students. Crews will complete remaining interior work over the summer. The University in 2006 acquired ownership of the 12,600-square-foot building at the corner of Washington Road and Prospect Avenue. The appearance and character of the building, which was designed in 1909, have been preserved and augmented with additions such as an elevator, accessible entries and restrooms, and a geothermal system for heating and cooling.

**Art museum** — After five years on display in front of the Princeton University Art Museum, the recognizable “Big Figures” installation was taken down on June 16. The 20 large bronze sculptures, created by internationally renowned artist Magdalena Abakanowicz, were loaned to Princeton by an anonymous donor. The concrete pad on which the figures stood at the entrance to McCormick Hall will be removed, and the area will be seeded for a lawn over the summer.

**Whig Hall** — The home of the venerable American Whig-Cliosophic Society will undergo replacement of its heating, ventilating and air conditioning system and interior renovations throughout the building. These renovations include accessibility improvements and enhancements to lighting, fire alarms, sprinklers and other safety features. Crews also will make repairs to the roof and building exterior.

**701 Carnegie Center** — After slightly more than a year of construction, work is expected to be completed by the fall on an office building at 701 Carnegie Center that will house the University’s Office of Information Technology (OIT) and Office of the Vice President for Finance and Treasurer. Work this summer will largely consist of interior finishes and moving in furniture. The new tenants are expected to move in from mid-October into early November. The facility will enable OIT to consolidate many of its operations at one location, and will allow portions of other buildings used by OIT and the treasurer’s office, including New South, to be repurposed for the University’s planned arts and transit neighborhood.

In addition to the treasurer and vice president for finance, offices in that organization moving to 701 Carnegie will be: asset administration; budget; controller; loans and receivables; operations support; payroll, payables and taxation; purchasing; risk management; and University financials. All OIT work groups will be moving to 701 Carnegie, including administrative information services, finance administration and planning, enterprise infrastructure services and support services. A few offices will remain on the main campus, including: the Educational Technologies Center (Lewis Library); hardware support (171 Broadmead); the Language Resource Center (East Pyne); media services (New South); the New Media Center (Lewis Library); and the Solutions Center (Frist Campus Center). In addition to offices, the building will include amenities such as training rooms, labs, flexible meeting rooms and collaboration spaces, a café with indoor and outdoor seating, and a fitness facility.

**Jadwin Gymnasium** — A new station for collecting trash and recycling will be constructed in the parking lot between Jadwin Gym and DeNunzio Pool, replacing a dumpster corral that had been located on the west side of the gym.

**College Road Apartments** — Five units in the 13-unit faculty-staff residence complex will reopen in July after being shut down for renovations due to damages from a January 2008 fire.