



IMPROVING THE STUDENT EXPERIENCE



BUILDING A FOUNDATION FOR THE FUTURE



ENABLING WORLD-CHANGING DISCOVERY



CREATING COMMUNITIES



PARTNERING FOR BETTER SERVICE

UW Information Technology

2013 ANNUAL REPORT

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Who We Are

UW Information Technology (UW-IT) is the central IT organization for the University of Washington, responsible for strategic planning, oversight and direction of the University's IT infrastructure, resources and services.

We provide critical technology support to all three campuses, the UW medical centers and research operations around the world.

We partner with the UW community to enable innovation, learning, discovery and service.



UW Information Technology (UW-IT)
uw.edu/uwit

IT Connect
uw.edu/itconnect

UW-IT Service Catalog
uw.edu/uwit/services

Our Mission

Enable UW students, faculty and staff to be more effective

Help the UW manage risks and resources

Foster a community of innovation





Welcome

At UW Information Technology, success comes through collaboration. Whether it's moving forward with a major initiative to modernize UW human resources and payroll operations, bringing faculty together to share how they're using technology to enrich student learning, or helping researchers identify the best technology resources to support their work, everything we do involves collaborating with our partners to advance teaching, learning, innovation and discovery.

Through collaboration, we continue to deliver innovative tools that deepen and expand interactions between faculty and students. Last summer 36 faculty members shared knowledge and best practices on using technology to enhance learning as part of a Technology Teaching Fellows program developed in partnership with the Center for Teaching and Learning, UW Libraries and the Office of the Provost. They showed how they use tools, including the Canvas learning management system and Tegrity lecture capture, to hold virtual office hours, provide real-time feedback to students, and put lectures and quizzes online, freeing up classroom time for more interactive work.

The launch of the MyPlan online academic planning tool earlier this year was made possible through collaboration with student advisers, Undergraduate Admissions and the UW Registrar, and funding support from the Student Technology Fee. Response was enthusiastic, with 24 percent of undergraduates using it by spring quarter. A recently secured \$1 million grant from the Bill and Melinda Gates Foundation allows us to extend MyPlan to Washington state Community and Technical Colleges in two years, making it easier for those students to plan for a four-year degree and transfer to the UW.

In the research area, our continuing partnership with the UW eScience Institute is helping to provide new tools to handle big data, a major challenge for researchers. An important step is the launch of a new 100G High Speed Research Network, which will help researchers better compete for big data science projects. We doubled the capacity of Hyak, the UW's high-performance shared computing cluster, and lowered rates and minimums for Iolo, the centrally managed data storage service. Strategic partnerships with Microsoft and Amazon enable UW researchers to access Microsoft Azure and Amazon Web Services cloud platforms more easily, and at discounted prices.

Another major collaboration is the UW's initiative to modernize critical HR/Payroll operations. Led by UW Senior Vice President V'Ella Warren, this project will strengthen regulatory compliance and produce substantial productivity gains throughout UW units. This is the first step in a larger effort to modernize the UW's aging

administrative infrastructure to meet the demands of a global research institution. The UW is moving forward with a revised six-year roadmap that will deliver new functionality and increased efficiencies faster and at less cost.

To ensure we are delivering the highest value services, three information technology governance boards provide us with guidance on strategic directions and on project and service priorities. This spring we will conduct a customer satisfaction survey to gather broader UW community input. We are partnering with the Foster School of Business to implement a new service management toolset to increase efficiency and improve customer service, and plan to offer it to other local IT departments, with the goal of creating a unified, automated help system.

Information technology is a game-changer for today's research universities. It is transforming the way we teach, learn, work, communicate and even how we think. It is changing what problems we solve and what we believe is possible. By collaborating together we can continue to harness information technology to help advance our most important work—developing tomorrow's leaders, solving global challenges and transforming lives.

Kelli Trosvig
VICE PRESIDENT FOR UW INFORMATION TECHNOLOGY
AND CHIEF INFORMATION OFFICER





What's the Plan?

MyPlan promises to transform student academic planning

Rahul Devanarayanan had his sights set on a challenging double degree in Civil Engineering and Community, Environment, and Planning—with the goal of finishing his studies in a timely manner.

Unfortunately, his planning hit a snag. Trying to line up the parallel tracks just wasn't working.

That was when Civil & Environmental Engineering Adviser Mariko Navin introduced Rahul to MyPlan, a visual, feature-rich academic planning tool launched to all students in January 2013. MyPlan was created by UW-IT with funding support from the Student Technology Fee.

Before MyPlan, students had to use several stand-alone systems to pull together information for their academic plans. Much work also was done with pencil and paper—a painstaking and error-prone approach in the University's dynamic environment.

"With MyPlan, we were able to visualize all the courses Rahul needed and come up with a great alternative strategy," Navin explained.

"MyPlan allows you to be very intentional about how you plan, in a way that's easy to visualize, adapt, and share," Devanarayanan said. "With MyPlan we were able to optimize my classes so my learning experience will be much more cohesive. Not only that, but with MyPlan I was able to figure out how to add two minors, in Mathematics and Urban Planning, and graduate in the same amount of time."

IMPROVING THE STUDENT EXPERIENCE

Canvas offers broader access, new features.

This learning management system now provides access to guest lecturers, non-matriculated students and others with Google accounts, and can be used to create non-academic content. Instructors can request course sites ahead of quarter start. Integration with UW's central authorization service makes it easy to assign and manage administrative roles.

SpaceScout expands to UW Tacoma, wins recognition. This Web and mobile app for locating ideal study spots features 270 spaces at UW Seattle and UW Tacoma, and will add UW Bothell in winter 2014. It received an international *Campus Technology* 2013 Innovators Award.

To better respond to classroom technology changes, Classroom Technology & Events (CTE) joined UW-IT. The move positions UW Seattle to plan more strategically, provide faculty with one-stop shopping for classroom needs and enhance the student equipment program. CTE and UW Libraries created the new Odegaard Undergraduate Library Active Learning Classrooms.

Notify.UW offers course availability alerts to students, and gives a better picture of course demand. Students receive a text or email message when space opens in a course of interest, easing registration for high-demand courses.

A new student recruitment and enrollment system provides a streamlined, personalized approach to recruitment, applicant communications and admission reviews, and is used by Undergraduate Admissions at all campuses.

A new UW Shopping Sheet tool, available through MyUW, helps prospective students understand the costs of attending UW and compare their UW financial aid package with other offers.

eTextbooks don't offer significant advantages over printed textbooks at this time, according to findings of a UW-IT pilot with 1,800 students in 23 courses over four quarters. UW-IT will continue to explore eTextbooks as the technology evolves.



Teaching and Learning
uw.edu/itconnect/learn/tools

MyPlan
depts.washington.edu/myplan

Classroom Technology & Events
uw.edu/uwit/cte



Mariko Navin, Civil & Environmental Engineering adviser (top), > and UW junior Rahul Devanarayanan (bottom) use MyPlan to map out his academic path.

"It's amazing how much functionality MyPlan has," Navin said. "It's going to be totally transformative in the way we work with students to help them reach their academic goals."

Early adoption of the new tool has been outstanding, according to Darcy Van Patten, UW-IT's Student Program Director. So far, MyPlan has had nearly 32,000 unique visitors, with about 11,000 creating an academic plan.

"We modeled many of the features of MyPlan after modern travel and shopping websites, so students have a familiar interface," Van Patten explained. Some notable features include robust course search, filtering and saving, integrated degree audit reports, real-time sharing of plans with advisers and detailed registration planning.

MyPlan is the first online tool to go live at the UW under Quali Student, a next-generation student system that

promises to dramatically improve the student experience. MyPlan is currently being adopted by Quali member Indiana University, which is already working on enhance-

ments that it will give back to Quali Student, of which UW is a founding member.

"Eventually, we want to have integrated Quali's open-source platforms for admission, enrollment, tuition, advising, billing and accounts, and financial aid," Van Patten said.

"We're adding features continuously. Next year, we will integrate MyPlan with the UW's registration system to provide an improved academic plan-

ning and registration experience."

"What MyPlan does is immense," Navin said. "It lets students spend less time and energy on the logistics of their education—so they have more time for learning."

"It's going to be totally transformative in the way we work with students to help them reach their academic goals."

Seeing Is Believing

New tools, better access bring striking visual insights for decision makers



Here's a graph that Chief Financial Officer Ben Robinson loves. The single image tells the story of UW's School of Public Health. It shows a seven-year trajectory for each of the seven Public Health programs, with the number of students enrolled and the amount of research awards generated by each. Robinson created it with Tableau data visualization software, using data from the Enterprise Data Warehouse (EDW).

"This was the first clear picture of who we are and what we do—and here it is on one slide," Robinson said. "Before this, we never had a single cohesive understanding of the School. There were simply so many moving parts that a spreadsheet could never capture our story so simply and clearly."

Now, generating insights like this—definitive, useful, easy to understand and based on nearly real-time data—is simple, efficient, and even fun, Robinson said, thanks to Tableau, EDW, and interactive reports and data sets developed by UW-IT.

"Tableau is the first thing I turn on every morning and the last thing I turn off every night," Robinson said. "I use it in every aspect of what I do, from budgeting and forecasting to immediately answering questions in meetings with real-time data."

"Our big goal for this year was making the EDW data more accessible," said Anja Canfield-Budde, UW-IT's Director for Enterprise Data & Analytics. "We want every decision maker to have access to reliable, comprehensive, central data, and useful ways to work with it."

BUILDING A FOUNDATION FOR THE FUTURE

The HR/Payroll Modernization project involved more than 300 UW staff in redesigning HR and payroll business processes to inform selection of a new HR/Payroll system; two finalist vendors gave demos.

UW Profiles, a new set of institutional dashboards, offers a dynamic way to access, explore and understand basic UW data. The first release this fall provides academic data. Created by the Office of Planning & Budgeting with UW-IT, UW Profiles uses Tableau data visualization software to provide access to the Enterprise Data Warehouse, UW's source of major institutional data.

New Enterprise Data Warehouse (EDW) resources provide better access to institutional data. In addition to UW Profiles and Tableau software, these include a new Business Intelligence portal with central reports and analytics, and training opportunities. The EDW has added data on research administration for analyzing research awards, academics including courses taught and course/section size and student credit hours.

CISO provides significantly enhanced data security. The UW Office of the Chief Information Security Officer (CISO) published a new University-wide policy on Information Security Controls and Operational Practices (APS 2.6), provided social media and encryption guidelines and expanded security and privacy online training. It also improved UW NetID abuse detection and mitigation to help safeguard UW institutional information.

A new UW Indoor Alert system provides emergency audio and/or reader board notifications in most UW Seattle buildings, augmenting the outdoor public address system. A new mass-notification solution for UW Alert is speeding up email and text delivery and automatically updates the UW Alert Facebook and Twitter pages.

Geographic redundancy for UW's critical business systems, part of the UW's business continuity plan, is halfway completed. This is a five-year effort to build out a data center in Eastern Washington and at remote cloud locations.



UW-IT Decision Support
uw.edu/uwit/im/ds

UW Profiles
uwprofiles.uw.edu

HR/P Modernization
f2.uw.edu/teams/hrp

UW Office of the Chief
Information Security Officer
ciso.uw.edu

Ben Robinson, School of Public Health CFO, uses
Tableau to create a clear picture of his School. >



To make EDW data easy to access and use, UW-IT also hosts more than 200 custom, fully interactive reports loaded with previously unavailable aggregate data from human resources, payroll, admissions, research administration, finance and more. It also created one research and three financial "cubes" packed with biennium data that can be "sliced and diced" and used to create visual representations that highlight historical trends.

"There are so many 'aha' moments that happen when people start using the drag-and-drop functionality of these tools through the new Business Intelligence portal," said Ann Wunderlin, Education and Communication Manager for UW-IT's Enterprise Data & Analytics. As one user told her, "Manipulating data used to be like pushing a shopping cart, but now it's like driving a Ferrari."

To increase transparency and confidence in the data, UW-IT has been careful to design all its new tools to be easy to "look under the hood" to confirm the underlying raw data is complete and correct, Canfield-Budde explained.

"The tool is just the tip of the iceberg," she said. "The bulk of the effort is incurred in gathering, integrating, organizing, modeling and defining the data." Providing access to valid, defined data from the EDW lowers the barrier to effective decision-making, she said.

This is an important step toward uniform, agreed-upon institutional data and analytics at the UW, based on a single source of central administrative data.

"It's a whole new way of working with data."

Because the data in the EDW is definitive, one of the most powerful impacts of these tools has been their ability to "myth bust," Robinson said. "With Activity Based Budgeting, it's very important that decisions are made with facts. In the past, we often had to deal with assumptions that could be difficult to check. Now it's simple."

There are other, less expected benefits as well. "With each interaction, each visualization, you learn new things, and frequently fork off in new directions that deepen your understanding," Robinson said. "It's a whole new way of working with data."

Defining a New Sky

Big data is transforming science, and building capacity to handle it is key

If you tried to describe the southern half of the observable universe in zeroes and ones, how much data would you pile up?

UW Astronomy Professor Andrew Connolly and his colleagues plan to find out. They'll use the eight-meter Large Synoptic Survey Telescope (LSST) being built in Chile, with a 3.2 billion-pixel camera, to survey the sky.

"Where you see one object with the naked eye, we'll see 10 million galaxies," Connolly said. "Within a year from the start of the survey, we'll have collected more information about the sky than in the entire history of astronomy."

So much data will be collected, in fact, that the LSST project describes its goal as "defining a new sky." Helping researchers transfer, store, share and access the overwhelming immensity of that data is UW-IT's job.

"Fundamentally, it comes down to plumbing," said Clare Donahue, UW-IT's Associate Vice President for Networks, Data Centers & Telecommunications. "You need big pipes. And you need them properly maintained, always available and secure. It's all part of the core infrastructure that UW-IT provides."

To help prepare for this flood of data, UW's infrastructure is on the verge of a major upgrade, thanks in part to a grant from the National Science Foundation. By 2015 UW-IT plans to complete installation of a 40G "big pipe" to serve as the UW's data backbone. That's four times the capacity of UW's existing 10G network.

ENABLING WORLD-CHANGING DISCOVERY

Provide a new 100G High Speed Research Network that will help UW researchers better compete for big data science projects and enhance the UW's data-driven research capabilities. The project is underway and partially funded by a National Science Foundation grant.

Provide researchers more computing capacity for their research dollars. Hyak, the UW's high-performance shared computing cluster, has doubled its capacity to more than 1,000 nodes. Hyak saves users from having to procure and maintain their own systems.

Lower rates and minimums for lolo, UW's centrally managed data storage service that supports data archiving and file sharing for researchers operating at all scales. Rates for lolo Archive were reduced 46 percent; lolo Collaboration, 22 percent. Minimum purchase requirements are now eight times lower.

Support UW social science researchers with high-performance computing services. The Information School and Department of Communication now use the Hyak high-performance computing cluster for big data projects, joining more than three dozen other research groups in using UW-IT-supported high-performance compute, storage and networking services.

Added enhanced resources for researchers to a national service portfolio offered by Internet2, a university consortium focused on innovative technology. UW-IT led the effort to provide Microsoft Azure with HIPAA- and FERPA-compliant storage and computing services in Internet2's NET+ portfolio at a significant discount, including a Business Associate Agreement to safeguard protected health information.

Astronomy Professor Andrew Connolly relies on UW's high-performance network to handle massive data sets. >

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Hyak shared computing cluster
uw.edu/uwit/services/hyak

Lolo scalable, file-based storage service
uw.edu/uwit/services/archivestorage

The UW eScience Institute
science.uw.edu



As part of this ambitious upgrade, UW-IT is also creating a 100G High Speed Research Network (HSRN) spanning the UW data centers and connecting to the outside research Internet through the Pacific Northwest Gigapop and Internet2. The combined backbone design and HSRN will offer dedicated data paths for researchers, including enhancements to UW's "Science DMZ," a network design promoted and partially funded by federal agencies that allows collaboration with peers at other institutions without being slowed down by firewalls. This, when used with large-scale storage and compute systems at UW like Hyak and lolo, will help support big data science projects.

"If you don't have the underlying pipes, dealing with all this data can take weeks or even months," Connolly said. "With a thousand times more data than today's surveys, waiting a month to analyze it changes the sort of questions you're going to ask and changes the exploratory nature of science."

"Having this infrastructure helps UW get the best scientists, the best researchers and the best students."

It's not only astronomy that needs this capacity, Donahue said. Other UW researchers are working on decoding the human genome, unraveling the mysteries of ocean currents and tectonic plates, and unearthing clues to discover core principles at the interface of mathematics, biology, and medicine, and they need it too.

In the end, many people will benefit from discoveries that emerge from the masses of data generated by UW researchers and supported by UW-IT, Donahue said. It might come in the form of previously undreamed-of cures for diseases or ways to prolong life, early warning of devastating tsunamis or fundamentally new understandings of the nature of the universe.

"UW-IT is a good partner, open to thinking about providing resources we'll need five years down the road," Connolly said. "Having this infrastructure helps UW get the best scientists, the best researchers and the best students."

Pedagogy First

A broad UW partnership maximizes how technology supports teaching and learning

You might assume that immersing yourself for a full week in Canvas, the UW's new learning management tool, would be strictly an exercise in technology. But for the 36 faculty who redesigned their courses with Canvas and other learning technology tools as part of the Technology Teaching Fellows (TTF) last summer, it was a lot more.

"You can add all kinds of gizmos and whizbangs to a class, but that doesn't mean students are going to learn better," said participant Betsy Evans, Associate Professor of Linguistics. "The pedagogy has to come first."

Ben Marwick, Assistant Professor of Anthropology, agrees. "The priority through the TTF workshop was always maximizing benefit to students. Technology was part of that solution, but the primary intention was improving teaching and learning."

That intention was baked into TTF, thanks to the broad partnership that put the program together—UW-IT, the Center for Teaching and Learning (CTL), UW Libraries, and the Provost's Office, including advice and support from experts at UW Tacoma and UW Bothell.

"We had a wide variety of smart people with great expertise to support our faculty to improve the quality of teaching and learning," said Gerald Baldasty, Senior Vice Provost for Academic and Student Affairs. In particular, Baldasty said, TTF co-facilitators Beth Kalikoff from CTL and UW-IT's Tyler Fox blended their impressive respective knowledge of pedagogy and technology to keep a tight focus on teaching and learning.

CREATING COMMUNITIES

UW SkyDrive Pro and UW Lync promote easier collaboration. UW SkyDrive Pro provides 25GB of cloud-based file storage and sharing. UW Lync offers online meetings, virtual whiteboards, instant messaging and more. Both Microsoft Office 365 services are HIPAA- and FERPA-compliant and became available this fall.

A recently completed Wi-Fi upgrade at UW Seattle replaced outdated equipment, expanded capacity and improved network resiliency and performance to meet rising demand.

A new UW Event Calendar provides an improved user interface and better mobile experience. Powered by Trumba, it launched this summer for all UW public events and for departmental and college event calendars.

MediaAMP stores, manages and distributes streaming audio and video and other digital media on a range of devices and platforms, including the Canvas learning management system. Available in the UW-IT Service Catalog, the cloud-based system supports protected health information and enables global-scale collaboration.

A major upgrade of the K-20 Education Network increased bandwidth to 40G to keep up with rising demand, particularly mobile. The high-performance network, designed and operated by UW-IT, connects Washington's K-12 schools, community colleges, universities, libraries and museums.

Faculty and staff feedback helps shape the future of UW telecommunications. More than 3,000 participated in a survey and focus groups to provide vital input for UW-IT's evaluation of collaborative communications solutions. These will integrate email, voice, instant messaging, videoconferencing and application sharing across devices, conference rooms and classrooms.

Additional UW Google Apps bring enhanced features. Google Takeout, Chrome Web Store, Fusion Tables, Translator Toolkit, Custom Search, and Google+ premium features were made available.



Technology Teaching Fellows
uw.edu/teaching/innovation/summer_institute

UW Skydrive Pro
uw.edu/itconnect/wares/online-storage/skydrive-pro

UW Lync
uw.edu/itconnect/connect/conferencing/lync-online

MediaAMP
uw.edu/uwit/services/mediaamp



Communication
Principal Lecturer
Lisa Coutu

Associate Professor of Linguistics Betsy Evans (top), Chemistry Lecturer Colleen C. Craig (bottom left) and Assistant Professor of Anthropology Ben Marwick (bottom right) joined Lisa Coutu in the summer 2013 Technology Teaching Fellows program.

According to the Provost's TTF Coordinator Brigid Nulty, the program attracted an equally wide variety of smart participants. "The 17 faculty members in the first of the two cohorts represented 16 different departments. There were very different levels of comfort with the technology, too," Nulty said.

Most participants found this diversity to be an unexpected benefit. "It was great to explore the technology of delivering a class with colleagues from many other fields," said Chemistry Lecturer Colleen Craig. "It gave me a chance to look at how I'm delivering my class with new eyes."

Communication Principal Lecturer Lisa Coutu agrees. "One of the biggest benefits was the community among faculty across units, to talk to people who have such different teaching needs and challenges," she said. Coutu, like a number of her TTF colleagues, is continuing those connections, inviting a faculty member in Arabic and Linguistics to monitor and critique her Canvas-enriched course, and reviewing the ways she plans to use technology tools with Colleen Craig, in Chemistry.

"It gave me a chance to look at how I'm delivering my class with new eyes."

Among other things, Coutu is using the "virtual office hours" function of Canvas to be more available to her professional graduate students who aren't usually on campus. She's also using Tegrity lecture capture software to post short lectures about upcoming readings. Evans, Marwick and Craig are putting more lecture-oriented

content and quizzes online, allowing them to do more small group work and interaction in their large courses.

"We want to equip faculty to try new things," Nulty said. "The more we can get the conversations going,

the more we can create a culture where it's common to talk about teaching and technology, and understand they can work together very well."

"Before TTF, the thought of learning Canvas and Tegrity was totally overwhelming," Coutu said. "Now I see they're giving me more ways to engage my students."

Service Made Simple

Partnering to pioneer a new tool for
one-stop, end-to-end IT service

Foster
School of Business

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ick Westrick, IT Director for the Foster School of Business, understands why his customers sometimes get confused or frustrated trying to get IT services.

“It can be tough to know who to call,” Westrick said. “For instance, if you have a broken projector bulb in your classroom, you need to call a different group than if you have a broken lightbulb. The same is true for different types of IT issues. Should I call my School’s IT department—or UW-IT?”

Multiply this problem by the number of local IT support staff across the University, and the need for a simpler, more efficient method to get help becomes clear. That’s one key reason why UW-IT is partnering with the Business School to implement a new IT service management platform. The new application will support the lifecycle of IT services, from the time they’re developed until they’re retired. It will let users easily report issues, automatically route them to the correct place and track progress until the problem is solved. It will also create a self-help knowledge base, establish a standard terminology for IT issues, address duplicate services and more.

Westrick and the Foster School are UW-IT’s initial partners for the pilot effort to build and test the system. Over the next year or so, UW-IT will begin to integrate the new service management application into almost every aspect of its business. Eventually, UW-IT plans to offer this new toolset to local IT departments across the UW, with the goal of creating a unified, automated system for accessing and delivering help.

PARTNERING FOR BETTER SERVICE

Redesigned the IT Connect website to make it easier to find information, with streamlined content, improved navigation and a design that works across mobile and other devices. It also offers better accessibility for those using assistive technologies.

Received EPA ENERGY STAR certification for the UW Tower Data Center for superior energy efficiency; the UW is one of only two universities in the country to ever earn it. Reduced power consumption in all UW data centers, increasing efficiency and lowering rates.

Strengthened strategic partnerships with leading technology companies to keep UW on the forefront of innovation. UW users can now easily access the Microsoft Azure cloud computing platform with a UW NetID. Google Apps for Education provides services to more than 34,000 UW users. Amazon's cloud computing platform will benefit scientific computing at the UW.

Engaged the UW community in guiding information technology (IT) strategies, priorities, funding levels and services through three governance boards. The IT Strategy Board advises on IT strategy; the IT Service Investment Board conducts an annual review of the Technology Recharge Fee and prioritizes UW-IT projects; and the IT Service Management Board identifies UW-IT services to enhance or retire.

Made significant progress on "Top Five" UW-IT service priorities. As recommended by UW's IT Service Management Board, these include support for faculty use of technology; consolidated research consulting services; enhanced Enterprise Data Warehouse analytics; consolidated servers and storage; and better management of UW-IT's collaboration services portfolio.



UW-IT Service Catalog
uw.edu/uwit/services

IT Connect
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UW-IT Metrics
uw.edu/uwit/metrics

IT Governance
uw.edu/uwit/governance

Foster School of Business IT Director Mick Westrick is partnering with UW-IT to improve customer service. >



"We're excited about partnering with UW-IT on this," Westrick said. "We want to be a good partner, and we want to learn, and this is going to help us be a better IT department."

Erik Lundberg, UW-IT's Assistant Vice President for IT Services & Strategic Sourcing, agrees. "I believe this is going to be transformational for us and for other IT groups on campus, and provide a more streamlined experience for all," he said. Implementing a service management system is part of UW-IT's adoption of ITIL, the most widely used set of IT best practices in the world, he explained. The goal is to make UW-IT, and other IT units that join in, more efficient and responsive, with the end result to deliver better service to the University.

"Eventually, this will provide a single place that people can go, either on the Web or on the phone, that integrates all the support that they need," Lundberg said.

"This approach is going to help us be much more proactive about how we provide service to our customers."

service management approach is going to help us be much more proactive about how we provide service to our customers."

Westrick is happy that UW-IT is spearheading this effort. With four help desk staff and more than 90,000 requests for help each year, he doesn't have a lot of time to implement new systems.

"So often, we're stuck in the weeds just solving problems," he said. "I think this

UW-IT Strategic Plan: Progress on Goals

UW-IT STRATEGIC GOALS

1. Excellent infrastructure and foundation services

2. Advanced productivity and collaboration tools

3. Improved global research support

KEY COMPLETED PROJECTS

- **UW Seattle Wi-Fi:** Completed major three-year upgrade to improve performance
 - **UW's data centers:** Consolidated from five to three, with significant power efficiencies and cost savings
 - **Telecommunications:** Surveyed 3,000 staff and faculty to develop strategies for integrated communications
 - **Authentication infrastructure:** Upgraded identity and authentication servers to improve security and support future collaboration
 - **K-20 Education Network:** Completed major upgrade, increasing capacity and performance
 - **Enterprise Integration Platform:** Continued development to minimize dependencies between systems, resulting in faster service deployments
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- **UW SkyDrive Pro and UW Lync:** Launched these Office 365 services for enhanced collaboration; UW SkyDrive Pro offers 25GB of storage
 - **SpaceScout:** Expanded to include UW Tacoma study spaces; received *Campus Technology* 2013 Innovators Award
 - **Software licensing agreements:** Renewed with Microsoft and Apple, making popular software available
 - **UW Event Calendar:** Released new calendar for University public events and departmental/college event calendars
 - **IT Connect website:** Redesigned for improved mobile access, navigation, and streamlined accessible content
-
- **Hyak:** Doubled capacity of UW's high-performance shared computing cluster
 - **lolo Archive:** Reduced rates 46 percent, and 22 percent for lolo Collaboration; minimum purchase requirements eight times lower
 - **Microsoft Azure:** Negotiated cloud storage and compute contract with Internet2 NET+ providing discounted rates and a Business Associate Agreement for protected health information
 - **Research Network:** Launched a project to more than double capacity to connect to off-campus research networks (to 100G) as part of the High Speed Research Network
 - **Research Support:** Established a research technology facilitator position to support researchers in using UW's cyberinfrastructure

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UW-IT Strategic Plan
uw.edu/uwit/strategic.plan





UW-IT STRATEGIC GOALS

KEY COMPLETED PROJECTS

4. Improved student experience

- **Canvas:** Rolled out learning management system to all three campuses; adopted statewide, with lower pricing
- **Tegrity:** Launched Web-based lecture capture; increased functionality
- **MyPlan:** Released academic planning tool to advisers and students; will also provide data collection that could aid in course planning
- **Classroom Technology & Events:** Merged with UW-IT; created Active Learning Classrooms in Odegaard with UW Libraries
- **Notify.UW:** Launched free course availability alerts for students, gathering better data on course demand
- **Financial Aid Shopping Sheet:** Released tool to help students compare financial aid offers
- **Student recruitment and enrollment:** Launched new system for all three campuses for 2014 admissions
- **eTextbooks pilot:** Completed and released findings

5. Modern information management and business systems

- **HR/Payroll Modernization:** Completed Business Process Redesign effort; selected two vendor finalists
- **Enterprise Data Warehouse (EDW):** Expanded to include more student and research award data
- **Business Intelligence portal:** Provides access to central reports and analytics in the EDW
- **Tableau data visualization software:** Offered to campus after successful pilot
- **UW Profiles:** Launched institutional dashboards for key UW academic data from EDW, with Office of Planning & Budgeting
- **eProcurement:** Automated purchasing and invoice reconciliation system, with Office of Financial Management
- **Service Management:** Selected IT Service Management toolset to enable more efficient and streamlined customer service

6. Business continuity, security and privacy

- **Information security:** Established new policy on information security controls and operational practices and published social media and encryption guidelines; expanded security and privacy online training
- **UW institutional data:** Further safeguarded through improved UW NetID abuse detection and mitigation
- **Geographic redundancy:** Completed first half of a five-year effort for UW's critical business systems
- **UW Indoor Alert:** New system provides emergency audio and/or reader board alerts in most UW Seattle buildings, and a new UW Alert mass-notification solution for email and text, integrated with social media

What's Ahead

IMPROVING THE STUDENT EXPERIENCE

Enhance the MyPlan academic planning tool with adviser-created sample plans and integrate it with UW's registration system.

Automate the curriculum review process with Quali Student Curriculum Management, to simplify curriculum planning, implementation and assessment, in partnership with the Office of the Registrar.

Redesign MyUW to improve navigation, better present information, and provide a mobile version of course resources. Engage MyUW users in a needs assessment to guide future development.

Certify student work with Turnitin anti-plagiarism software to help instructors and students check their work against a database of 24+ billion Web pages, 300+ million student papers and leading library resources. It works with Canvas online assignment submission.

Develop new survey tools to offer a quick, reliable way to build and administer online surveys and quizzes anytime, on any device.

Launch My Husky Experience to explore ways to better support student participation in co-curricular learning through enhancements to MyPlan and MyUW.

Explore new Web-based lecture capture tool as a single solution for all three campuses. The new tool works in large lecture halls that current technologies can't serve.

BUILDING A FOUNDATION FOR THE FUTURE

Move forward with new HR/Payroll system implementation, after vendor selection and review and approval by the Board of Regents.

Implement an Enterprise Document Management System to increase efficiencies, reduce paper, and support records retention and collaboration.

Expand UW's Enterprise Data Warehouse to include student course enrollment data for Activity Based Budgeting reporting and other student data by summer.

Roll out Tableau software with new data visualization capabilities for UW students, faculty and staff; provide more institutional dashboards in **UW Profiles**, with the Office of Planning & Budgeting, that will include information about classroom utilizations, research awards and proposals and financial expenditures.

Continue to implement eProcurement, creating greater efficiency through spend management, automating processes for contract storage and compliance, honoraria for individuals, and receiving goods and services prior to payment.

ENABLING WORLD-CHANGING DISCOVERY

Upgrade the UW network to 40G to improve capacity and performance.

Survey UW researchers about their technology needs and use the findings to enhance support.

Connect Hyak high-performance shared computing cluster to the new High Speed Research Network (HSRN) and offer big data tools such as Hadoop.

Combine lolo central storage with traditional backup file services to handle massive petabyte-scale data sets.

Ensure Ocean Observatories Initiative data can be stored and recovered during seismic disruption by designing data network and storage facilities in geographically diverse cities.

Expand the SQLShare database-as-a-service so it can be offered at no cost to any UW researcher.

for 2014

CREATING COMMUNITIES

Offer UW Exchange Online, a cloud-based email and calendar service with 50GB of mailbox storage per user, covered by the Technology Recharge Fee.

Provide eduroam network access to support easier collaboration among research and education partners worldwide.

Continue to offer Technology Teaching Fellows workshops to enable faculty to leverage technology tools to enrich learning.

Improve interdisciplinary collaboration and minimize online security and privacy risks by leading work to develop Identity and Access Management software through the national higher education consortium CIPHER (Community Identity Framework for Education and Research).

Expand streaming audio and video services for UW campuses using MediaAMP.

Upgrade the UW SharePoint service to SharePoint 2013 to provide a substantially better cross-browser and mobile experience.

Provide a centralized captioning solution for UW-produced videos that is convenient and cost-effective.

Evaluate communications solutions for the UW that integrate email, voice, instant messaging, videoconferencing and more.

PARTNERING FOR BETTER SERVICE

Work with the IT governance boards to prioritize resources, ensure transparency and deliver forward-looking, customer-focused IT services.

Conduct a broad-based customer survey to measure satisfaction and identify improvements.

Collect continual customer feedback on services and outages.

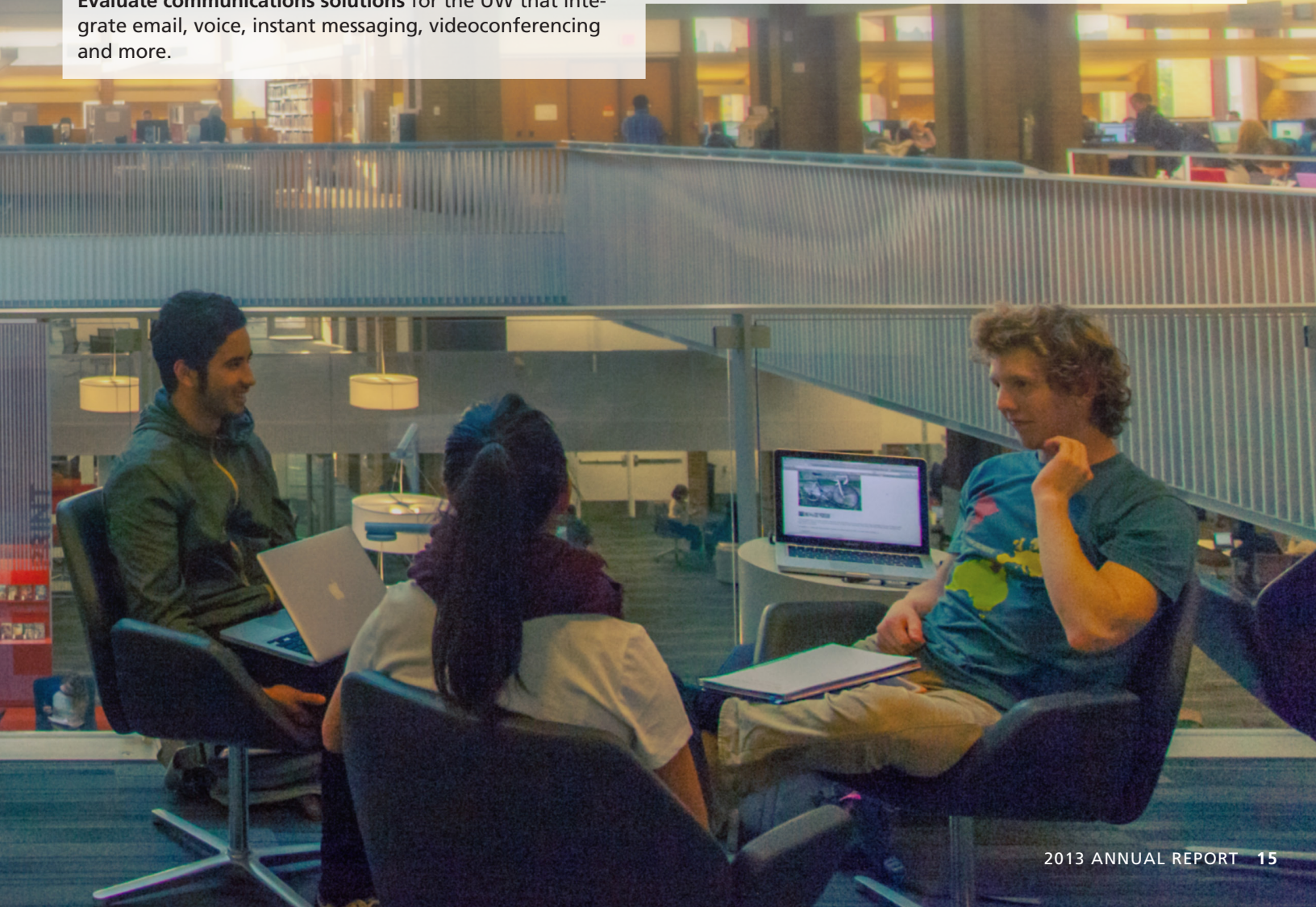
Implement a new service management tool, with the Foster School of Business, to provide a unified, automated system for accessing help.

Partner with other IT units to leverage the new service management tool to improve IT service delivery across the UW.

Redesign the UW-IT Service Catalog, enabling customers to more quickly and conveniently order services.

Integrate multiple UW-IT help desks to deliver 24x7 support and create a more consistent customer experience.

Expand service options for storage and servers to provide more efficient solutions to campus IT groups.





UW-IT's Annual Budget: Fiscal Year 2014

Sources (Revenue)

State Appropriations, Tuition, and Indirect Cost Recovery	51,260,994
Self-Sustaining Services	25,297,026
Technology Recharge Fee	18,896,903
Temporary Allocations and Carryover Funds	11,742,736
Student Technology Fee	2,216,760
Total*	\$ 109,414,419

Uses (Expenses)

Administrative Systems	33,416,752
Data Networks	19,603,306
Telecommunication Services	8,520,991
Classroom Technology & Events	6,021,673
Regional Networks	4,941,908
Email, Calendaring, and Collaboration Tools	4,632,796
Teaching and Learning Tools	4,245,243
Information Security and Privacy	4,105,965
Managed Servers and Workstations	3,512,902
Data Center and Facilities	3,483,439
Identity and Access Management	3,375,428
Campus Software Licensing	3,002,219
Student Technology Fee-Funded Initiatives	2,216,760
Digital Asset Management and Distribution	1,541,623
Backups and Mass Storage	1,464,086
Accessible Technologies	1,157,333
Emergency Preparedness and Business Continuity	1,039,592
Office of the VP and CIO	986,276
UW Support for KEXP and UWTV	671,579
IT Consulting	572,076
Cable Television	502,004
Technology Spaces and Labs	400,467
Total*	\$ 109,414,419

more
info

Technology Recharge Fee
and Self-Sustaining Services
uw.edu/uwit/recharge

*This budget reflects several changes in reporting methodology from prior periods: Sources (Revenue) now includes Temporary Allocations and Carryover Funds; Uses (Expenses) now includes both Regional Networks and Classroom Technology & Events, which transferred to UW-IT from another unit in FY 2014.

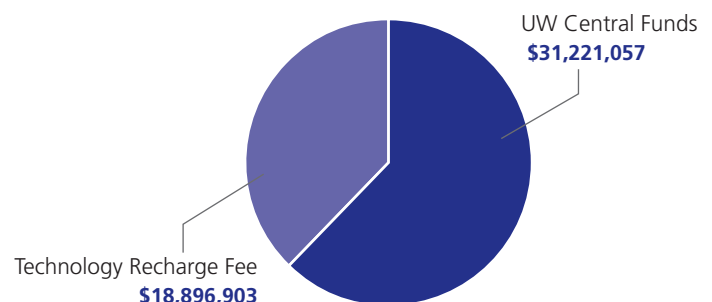
Basic Bundle of IT Services

Almost 50 percent (\$50,117,960) of UW-IT's budget is dedicated to providing a basic bundle of critical information technology services to all UW students, faculty and staff.

These basic services are supported by \$31,221,057 in UW central funds and \$18,896,903 from the Technology Recharge Fee. This fee was established in FY 2011 to provide a sustainable, long-term funding model for information technology. It replaced an outdated recharge model based on phone lines, which did not fully cover the cost of services. The Technology Recharge Fee is a per capita rate paid by all UW academic and administrative units and medical centers.

Funding Sources

Total: \$50,117,960



By the Numbers: What UW-IT Supported This Year

12 petabytes

Data the UW exchanged over the Internet – equals 160 years of HD video

228 thousand

People who used their UW NetIDs

1.1 petabytes

Storage capacity for scientific computing with Hyak and Iolo

1.3 million

Business transactions processed on peak days

13 thousand per month

Requests/incidents managed through the Technology Service Center

31.7 million

CPU hours spent in scientific calculation using Hyak

3 thousand per minute

Student course registration transactions during peak times

295 thousand

Unique devices that used the UW wired network

18 thousand

New downloads in 24 countries (including USA) of the UW's mobile apps

343 thousand

Unique devices that used the UW wireless network

443 thousand

Logins to computers in Odegaard Undergraduate Library Learning Commons

1.3 billion

Email messages processed – 69% incoming are spam

192 thousand

Information requests processed by Enterprise Data Warehouse

Credits

Feature writing: Rudy Yuly

Writing and editing: UW-IT Communications Team

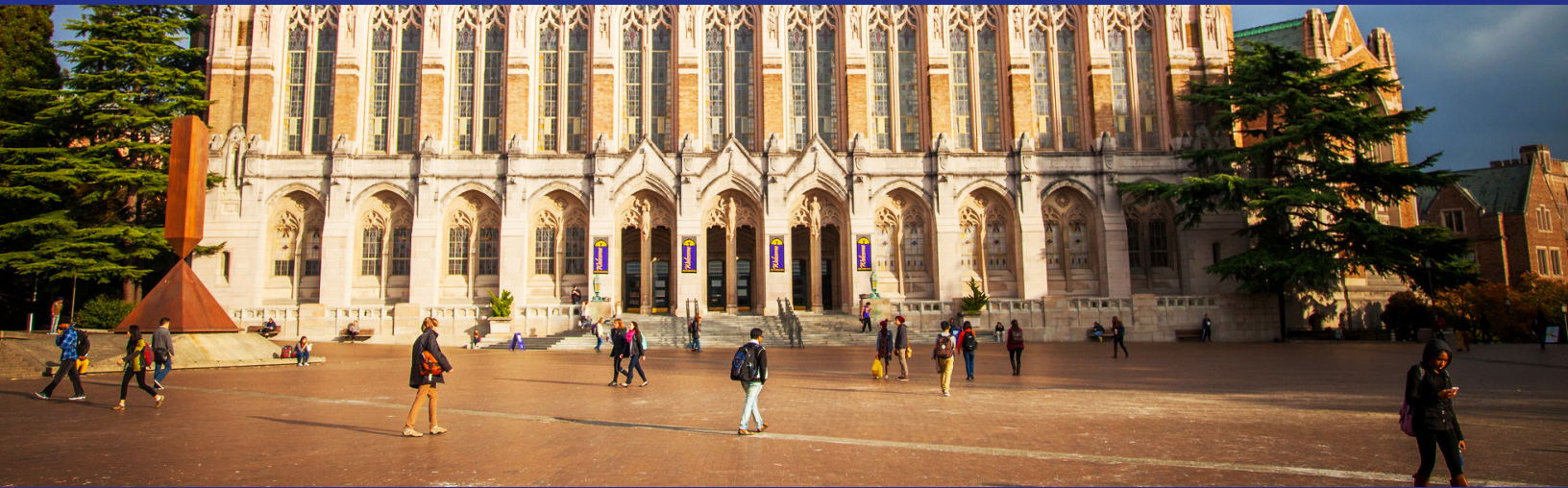
Design: Karin Mellskog, UW Creative Communications

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Other photography: Brian DalBalcon; Morgan Dusatko, UW Admissions; Katherine B. Turner, University Marketing

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