Dear Colleagues,

This year’s annual report highlights the accomplishments by Information Services over the past year. Many of these efforts were done collaboratively with key partners both across and outside the university. Through these partnerships we’ve helped create a transformative educational experience for all learners, advanced world-class research and built a stronger data framework for university business functions, all while forging and strengthening relationships throughout the university, the state and beyond.

These pages highlight the ways in which we have supported the university’s Strategic Plan in our day-to-day work and in the projects we spearhead and support.

For our students and faculty, we introduced Learn@OregonState, which is an exemplar of how thoughtful collaboration can bring about a suite of modern learning and teaching tools that will help lead us to the future and that the campus community believes in. By partnering in designing and realizing the Learning Innovation Center (LInC) we have helped to create a 21st century facility that will serve OSU for decades to come.

In support of the administrative operations of the university, we made significant progress toward information and data sharing. Through CORE we’ve created of hundreds of reports that can be accessed by people throughout the OSU community, creating a unified view of data throughout the university.

Information and technology are fundamental to everything the university does, and Information Services provides foundational services for the entire university. At the same time, information technology and data are recognized as strategic assets necessary to fulfill OSU’s mission and to help meet the challenges of an evolving world. Over the past year, Information Services has met both missions.

As you browse the pages of this report, you will see the variety of functions in which IS serves the OSU community to meet these missions and the remarkable achievements the IS staff has made this year. I encourage you to share your questions and comments with me as we continue to serve the people of OSU.

Sincerely,

Lois Brooks
Vice Provost, Information Services
Transformative educational experience

IS has promoted student success by assembling a new digital environment for instruction, improving the quality of the technology in the physical environments where formal and informal learning occurs, and ensuring that students can be productive in the use of their personal or the university’s technology.

New, shared, digital learning environment: Learn@OregonState

This dynamic learning ecosystem advances digital education through the thoughtful deployment of new learning platforms and applications. Canvas and Kaltura MediaSpace form the foundational set of capabilities, and we have augmented this with plagiarism software, clickers and integration with content from several textbook publishers. It allows the OSU community to offer all the main tools instructors and students need in one integrated package, a platform that can be used across the breadth of the university’s instructional programs, from traditional for-credit instruction to professional and university outreach programs.

Learn@OregonState is guided by an Instructional Technology Governance Committee and an Advisory Committee to ensure alignment with the university’s goals.

As a result of active consultation with advisory committees, faculty and students, and active support from IS and university partners, Learn@OregonState has been rapidly adopted. As the chart above shows, within two quarters we moved from Canvas hosting just 16 percent of credit courses across all colleges to hosting 64 percent. The rest of the courses will be migrated to Canvas this fall.

Instruction is delivered more effectively when information is presented in multiple forms. Through Learn@OregonState, we’ve created a media-rich environment for students. Integration within Learn@OregonState makes it easy for instructors to upload digital media to use in their courses, or to have students create media as part of their assignments. Instructors have eagerly taken advantage of this new capability, resulting in improvements to many classes and a more than 100% increase in the amount of materials uploaded to Learn@OregonState this year.

OSU helped form the Unizin consortium to lead and foster national collaboration surrounding new educational practices. Through Unizin we will have extensive analytics capabilities, support for open education resources and additional features and functions to enable teaching and learning. We are also helping to shape the national conversation about next-generation education, and influence the marketplace toward better support for university goals.
Improving formal and informal instructional spaces

Designing the future of instructional space: Learning Innovation Center (LInC)

LInC, an integrated resource center designed to elevate student learning through active learning, will open fall 2015. IS was a major partner in the design of this center and its technical facilities, and will manage the facility for OSU. LInC includes parliament, scale-up, and in-the-round classrooms, and a "test-kitchen" where new technologies can be tested in a live environment, allowing students to experience learning in multiple ways.

IS refreshed the technology in nearly 100 rooms last year, including classrooms and student presentation centers. We were also involved in remodels and building projects across campus, ensuring up-to-date classroom technology design and consistency in technology faculty use. We have also begun a Geometry of Learning study to find out how people use the learning spaces we design. The first phase of this focuses on how where a student chooses to sit affects learning. Information from this study will help the university design even better learning spaces in the future.

Wireless

35,000. That's the number of wireless devices expected to simultaneously access our network this year, which is why it was a priority last year to begin rolling out wireless network upgrades to buildings across campus. The upgrade to a newer wireless standard makes it possible to support a greater number of students using a larger number of devices and demanding more bandwidth. Even more importantly, in classrooms it enables students and faculty to engage in technology-enhanced learning. The upgrade is being rolled out across campus, and additional investments in the College of Engineering and the Valley Library support upgrade for the large numbers of students who study in these spaces.

Balancing maintenance with innovation

The former Technology Resources Fund was restructured to accomplish two goals. First, an innovation fund was created, the Learning Innovation Grant program. These grants will propagate successful practices, raise the visibility of great teaching, and improve pedagogy through identified learning strategies. Twenty Learning Innovation Grants across multiple campus disciplines, were awarded for AY 2015.

Second, a Technology Commons Fund was created. Following the lead demonstrated by the university's new approach to capital planning, the TCF is being managed through a program management budget rather than a grant funding process, in collaboration and consultation with university partners. This is intended to ensure that expenditures are aligned with university priorities and to address the problem of ensuring that classrooms and other essential parts of the university's infrastructure are regularly refreshed and stay aligned with contemporary needs and expectations.
Ensuring student and instructor productivity

Ensuring a successful first year experience with technology

IS staff directly engaged with all 4,000 members of the freshman class. We used interactive games to educate students about Learn@OregonState and other technologies, and to help educate students about wellness and issues of importance to student success programs like the Educational Opportunities Program and TRiO.

Combined experiential learning with better technology support

Students are a core part of the IS team, and with us they gain skills that are highly marketable after graduation. IS staff collaborated with students to develop the Student Technician Engagement Plan (STEP) to maximize the opportunity they have to learn IT skills while providing high-quality technology support. STEP creates a framework for hiring, training and supervising our students, letting them progress from basic to advanced skills.

Better, cheaper access to software

IS enrolled OSU in the Office 365 cloud service. As a result, beginning in the fall, students gained access to Office Pro Plus to install on their computers at no cost. 24,994 students took advantage of this opportunity and saved $2M, lowering their cost of attending college.

The right software licensing ensures students and faculty share access to the same tools and gives students access to the same software they’ll use after they graduate. It creates greater opportunities for experiential learning through student research projects. This year, we purchased a site license for MATLAB, a tool used across campus for data analysis that has since been downloaded 2000 times.

More convenient printing: BeaverPrint

For a healthy planet!

BeaverPrint causes someone to pay more attention to what they’re printing, which led to a 10 percent reduction in printed pages!

Being able to print from their mobile devices to the location that’s most convenient for them saves students time. Through the initial rollout of BeaverPrint, this was realized at several buildings across campus, including the Library, the campus’s most frequent printing location. BeaverPrint is a collaboration between IS, the Library, the College of Business and the College of Agricultural Sciences. With the success of the pilot program, BeaverPrint will be rolled out campus wide.

Leadership in research, scholarship and creativity

This last year has seen a significant increase in direct IS engagement in research activities. In addition to supporting research and collaboration by providing robust system wide infrastructure, IS staff are increasingly engaging in new research and key industry partnerships to help drive innovation in the classroom and laboratory and to help build a top-tier research computing environment for a top-ten land grant research university.
Engaging the community to create a vision for research computing

Creating the infrastructure and support that faculty need to be competitive will require cross-campus, multi-disciplinary collaboration based on a shared vision for technology. This vision will need to extend from the applications that faculty use to administer their grants to the computational resources they use to analyze their data. The Computing and Data Taskforce was formed to begin developing this vision. Jointly chaired by the Vice Provost of IS and the Vice President of Research, this taskforce evaluated the research computing capabilities of the university and recommended strategies to increase the university's research impact.

Expanding access to computing capacity

Harness the research power of XSEDE

Today's researchers need ever greater computer power—power beyond what can be purchased and located at OSU. To help meet that need, OSU joined the Extreme Science and Engineering Discovery Environment (XSEDE) Campus Champion Program, which provides the OSU community with easier access to a national network of NSF-funded supercomputers. We also hired OSU's first Research Computing Manager to be an advocate and resource for researchers across campus. He serves as our Campus Champion and will help our researchers get maximum benefit from XSEDE.

While seeking to maximize access to computing resources off-campus, IS continued to provide on-campus resources to colleges. For the College of Agricultural Sciences, IS provided storage services and virtual server capacity, giving the college the ability to consolidate duplicative systems at a cost below what the college could afford on its own.

Improving the flow of data

Our core network is the backbone of connectivity at OSU, but hadn’t been overhauled since it was first put into place. That’s why we’ve been migrating to the New Core — a network infrastructure designed to scale as needed, and much more secure than what had been in place. The network design also allows for connection speeds as high as 10 Gbps and will ensure that faculty offices, research labs and classrooms in buildings across campus have the bandwidth and network performance they require.

The Research Network complements the new core project. Through the new core, faculty gain adequate network access to campus data centers. Through the data center and this planned 40 Gbps research network, they will have high-bandwidth access to instrumentation, data and computing resources on-campus and off. In collaboration with the College of Engineering and the Center for Genome Research
and Biocomputing, and funded by NSF, IS purchased and began installing the equipment for this network.

**Strength, impact and reach throughout Oregon and beyond**

Information Technology is critical to the university’s extension mission in the 21st century. By providing world class IT and communications infrastructure, IS provides a platform for OSU to expand its impact and reach across Oregon and around the world.

**OSU-Cascades**

IS has partnered with OSU-Cascades to help with all areas of IT affected by the expansion to a four-year university. This past year saw the completion of a comprehensive IT proposal for OSU-Cascades that outlines our vision to align the technology needs of the campus with its trajectory for growth.

**Corporate relationships**

**Intel**

IS entered into a partnership with Intel to test next-generation storage technology. As we consider the implications of big data, this partnership both helps us shape the marketplace to our advantage and provides an edge for our staff to be able to better provide resources for OSU researchers.

**Kaltura**

Our long relationship with Kaltura means that we’ve helped steer the educational conversation from early on, grants us early access to new tools and features, and affords us the opportunity to reach out to our peers and the industry to communicate what we’ve learned and where we see the technology leading us.

**Advocacy**

IS staff participate on advisory boards for Ellucian (Banner), Salesforce and Canvas. We manage the national user group for Kaltura.

**Digitalization**

While everyone benefits by moving from traditional paper processes to online transactions, those at a distance from the Corvallis campus are especially well served by moving to digital business processes. An example is EvalS, a web based tool deployed by IS that will improve the process of completing annual performance evaluations.

**Other areas of distinction**

Information and data is a vitally important asset of the university. It is essential to the quality of experience offered to the university’s students and the efficiency of the university’s operations. IS has been aggregating and increasing the sharing of that information – integrating applications to improve
the accuracy of the information they contain and reducing duplicative data entry – while, at the same time, improving information security.

Making data a strategic asset: CORE

In just two years of using CORE, more than 1,000 members of the OSU community have created 530 reports and dashboards with three main benefits:

(1) Improving the university’s understanding of its students by presenting actionable data to inform decisions.

(2) Supporting our understanding of progress toward the goals in Strategic Plan 3.0.

(3) Improving efficiency in business operations by having accurate data available when it’s needed.

Our work on CORE garnered national recognition. We are one of three research universities to receive the National Association of College and University Business Officers (NACUBO) Innovation Award, which recognizes process improvement and resource enhancement. OSU was also honored by the Education Advisory Board (EAB). The EAB recognizes 20 hallmarks of excellence in data governance and analytics. This year, OSU was honored by being recognized for outstanding work in five of these areas, more than twice as many as any other university.

Strengthening governance and information security

Information security is integral to students’ academic experience, to research and to the administration of OSU.

Information technology governance councils

In AY 2015, OSU established an Information Technology Security Governance Council, which is appointed by the VPIS to define risk, assure a framework and approach to mitigating that risk, recommending which risks to accept and which to avoid, and to assure that security investments are balanced and well managed. The council reviews processes and protocols, recommends policy and oversees the annual IT audit.

The Instructional Technology Governance Council steers Learn@OregonState. As this essential ecosystem grows, the council will recommend university engagements, priorities for investments and program involvement.

The Technology Commons Fund steering committee reviews and recommends priorities for this fund, and helps assure alignment to college priorities and university goals.

Information security

Phishing attempts pose one of the biggest security risks for students. The best defense is for students to know and understand what phishing is and how not to get caught. To raise awareness and
educate the campus community about how to recognize a phishing attempt, IS held a Phishing Derby throughout National Cyber Security Awareness Month.

Single sign-on
The Single Sign-on program brings greater security through more complex authentication processes, easier access auditing and fewer passwords being written down and left for someone to find. The pilot program was rolled out in AY 2015. It creates a single sign-on credential that allows users to access a myriad of cloud and network applications with just one username and password, simplifying the experience for faculty and students.

Network financial stability
OSU successfully developed and launched a sustainable funding model for the network; this helps assure robustness and capacity of this essential infrastructure.

Improved business processes
Automating the repeats process
When students are faced with incorrect GPAs or false positives or negatives about whether they’re on academic probation, their ability to make informed educational decisions is impaired. With IS’s automation of the Repeats process, this is no longer a worry students face. With the automation, too, Financial Aid is aware of student performance a week earlier than before.

Supporting initiatives in colleges and divisions
In FY15, IS prioritized support for college and division projects, including Sunapsis (international student visa processing), Studio Abroad, Aleks Math Placement, Alcohol.edu and SafeHaven, integrating with systems like Banner Student to enable accurate and timely information. In addition, we helped Housing implement a new Housing Management System, and helped launch international and graduate student applications processing, which eliminated duplicate data entry by those units. These efforts have an added benefit of making sure that information from these applications will begin to flow into CORE, improving the university’s understanding of its students.

Automating data integration
Colleges and divisions are well served by having carefully selected systems of differentiation that allow business functionality not supported by Banner. For example, graduate admissions, INTO, Extension service and tracking student internships are among the functions supported through systems of differentiation. It is essential that these systems have accurate and timely data, and IS invested in automation that drastically reduced the time to deploy new integrations and assures the data stays fresh and accurate. Twenty-three processes were automated this year.