Division of Library and Information Services Strategic Plan Fiscal Year 2016

Dickinson

Table of Contents

PURPOSE AND STRUCTURE	2
LIS MISSION STATEMENT	3
LIS STRATEGIC GOALS, FISCAL YEARS 2015-2018	4
LIS INITIATIVES MAPPED TO LIS STRATEGIC GOALS	5
DIVISIONAL	5
ACADEMIC TECHNOLOGY DEPARTMENT	5
ENTERPRISE SYSTEMS DEPARTMENT	6
Infrastructure Systems Department	6
LIBRARY SERVICES DEPARTMENT	7
USER SERVICES DEPARTMENT	7
LIS DEPARTMENTAL INITIATIVES MAPPED TO DICKINSON COLLEGE STRATEGIC PLAN	8
DIVISIONAL	8
ACADEMIC TECHNOLOGY DEPARTMENT	8
ENTERPRISE SYSTEMS DEPARTMENT	9
Infrastructure Systems Department	9
LIBRARY SERVICES DEPARTMENT	10
USER SERVICES DEPARTMENT	11
LIS INITIATIVES, DEPARTMENTAL NARRATIVES, FISCAL YEAR 2016	12
DIVISIONAL	12
ACADEMIC TECHNOLOGY DEPARTMENT	12
ENTERPRISE SYSTEMS DEPARTMENT	13
Infrastructure Systems Department	15
LIBRARY SERVICES DEPARTMENT	15
USER SERVICES DEPARTMENT	16
LIS PLANNING CYCLE	18

Purpose and Structure

The LIS Strategic Plan ensures the alignment of the division's planning, budgeting and initiatives with the Dickinson College Strategic Plan. It accomplishes this by linking each level of planning according to the level of the organization from the campus as a whole to individual members of the staff. The following table depicts how each layer of planning is associated with a layer of the LIS organization.

Planning Level	Organizational Level	Timeframe
Dickinson College Strategic Plan	College	FY 2011-2016
LIS Strategic Goals	Division	FY 2015-2018
LIS Initiatives	Department or CFT	Single Fiscal Year
Individual Staff Goals	Individual Staff	Single Fiscal Year

The LIS Strategic Plan performs the following functions:

- Aligns divisional planning with College priorities as expressed in the Dickinson College Strategic Plan.
- Provides a basis for discussion during the annual planning cycle with the Information Technology and Services Committee.
- Promotes communication and teamwork between LIS departments.
- Helps to set priorities.
- Lends coherence to initiatives across a disparate range of functions.
- Guides the division as it forms annual budget proposals for the Planning and Budget Committee.
- Communicates divisional plans and priorities to the campus community.

LIS Mission Statement

The Division of Library and Information Services supports Dickinson College's aspiration to establish itself "permanently as a leading liberal arts college in America" as expressed in the Dickinson College Strategic Plan, by seeking to achieve the following:

- o Students, faculty and staff who have achieved a degree of information fluency appropriate to their individual roles and needs.
- o A leadership position at the national level in the application of information technology in learning, teaching, and scholarship.
- o A unified and seamless path to information resources on and beyond the campus for all College constituencies.
- o Enhanced institutional effectiveness by utilizing systems that support the continuous improvement of the College's administrative processes.
- A robust and secure campus computing and communications network that can leverage the College's investments in information technology.

LIS Strategic Goals, Fiscal Years 2015-2018

LIS Strategic Goal	Description
Goal 1:	Digital Access and Scholarship. The shift from physical to digital collections in the library, the deployment of technology in support of the college's business functions and the deeper integration of digital technologies in learning, teaching and research will accelerate during the planning period. The division needs to draw on staff and other resources to support the college's increasing use of digital technologies.
Goal 2:	Compliance and Security. The need to comply with increasingly complex regulatory and legal requirements will continue to grow going forward. The division shares the responsibility for compliance with other divisions of the college, but the central role played by technology in ensuring compliance points to the need to address these requirements in a systematic and planned manner. A major component of compliance is information technology security. The technology threat environment can only be expected to become more serious and the consequences of security lapses more consequential. This threat also calls for a systematic and comprehensive approach that draws on resources across the division.
Goal 3:	Fiscal Sustainability. The division needs to reflect the college's renewed focus on fiscal sustainability. A prime example of this need is the library acquisitions budget. The price increases of key components of that budget increase at a rate greatly in excess of any increases that the division can reasonably be expected to receive from the college. In this and other areas the division needs to develop a sustainable, multi-year approach to budgeting.
Goal 4:	Emerging Technologies. The rate of change in information technology and services, combined with the impact of consumer technology on user behavior and expectations, challenges our ability to identify and leverage new and emerging technologies. However, if emerging technologies are not identified, opportunities for cost savings, efficiencies and new contributions to learning, teaching and research may be missed. The division needs to maintain its capacity to leverage new technologies in support of the success and strategic direction of the college.

LIS Initiatives Mapped to LIS Strategic Goals

LIS Initiatives	Goal 1: Digital Access and Scholarship	Goal 2: Compliance and Security	Goal 3 Fiscal Sustainability	Goal 4: Emerging Technologies
Divisional				
1. Digital Signage	✓			
Academic Technology Department				
1. Maker Space	✓			✓
2. Mobile Projection Solution	1			
3. Drupal 8	1			
4. Technology Evaluations				1

Goal 1: Goal 2: Goal 3 Goal 4: Emerging and Security Scholarship Goal 3: Fiscal Emerging Technologies

Enterprise Systems Department

1.	Oracle 12c Upgrade			✓	
2.	Oracle Active Dataguard Implementation		✓		
3.	Oracle Advanced Security Implementation		✓		
4.	ColdFusion Server Upgrade			1	
5.	Cognos Upgrade			1	
6.	Addition of Personalized Content to College Mobile Application	✓			
7.	Degree Works Implementation			✓	
8.	Jadu-Nolij Web Integration and Deployment		✓		
9.	Human Resource Services Event Management Needs Assessment			•	

Infrastructure Systems Department

1.	Security technologies	✓		
2.	Office 365			
3.	Network Services Life Cycle Management and Replacement Schedule		✓	

	Goal 1:	Goal 2:	Goal 3	Goal 4:
LIS Initiatives	Digital Access	Compliance	Fiscal	Emerging
	and Scholarship	and Security	Sustainability	Technologies

Library Services Department

Zero Base Budget Review		✓
2. ACRL Information literacy	framework	
3. Physical Collections		✓
4. Non-print resource assessmen	ent.	✓
5. Library Space Alignment		✓
6. Institutional Repository Ass	essment	
7. Digital Humanities Support	✓	

User Services Department

1.	Evaluate Laptop Data Encryption Options		•		
2.	Collaborative Writing	1			✓
3.	Implement a Technical Resources Knowledge Base			✓	
4.	Windows 10 and Yosemite			✓	
5.	Evaluate Current Sustainability Practices on Campus Systems			✓	
6.	Alternative Paper Sources for Campus Copier Paper			✓	

LIS Departmental Initiatives Mapped to Dickinson College Strategic Plan

LIS Initiatives	Building Our Community of Students: Enrollment Management	The Dickinson Student Experience	Facilities	Alumni— "Descending the Old Stone Steps"	Human and Financial Resources	Securing the Future: The Challenge of Wealth	How Do We Measure Our Success?
Divisional							
1. Digital Signage		✓					
Academic Technology Department							
1. Maker Space		✓					
2. Mobile Projection Solution		1					
3. Drupal 8		1					
4. Technology Evaluations						1	

LIS Initiatives	Building Our Community of Students: Enrollment Management	The Dickinson Student Experience Enterprise Syst	Facilities tems Department	Alumni— "Descending the Old Stone Steps"	Human and Financial Resources	Securing the Future: The Challenge of Wealth	How Do We Measure Our Success?
1. Oracle 12c Upgrade							1
Oracle Active Dataguard Implementation					✓		
3. Oracle Advanced Security Implementation					1		
4. ColdFusion Server Upgrade					1		
5. Cognos Upgrade					1		✓
6. Addition of Personalized Content to College Mobile Application		✓					
7. Degree Works Implementation	•						
8. Jadu-Nolij Web Integration and Deployment					✓		
Human Resource Services Event Management Needs Assessment					1		
Infrastructure Systems Department							
Security technologies					1		
2. Office 365					✓		
Network Services Life Cycle Management and Replacement Schedule					•		

LIS Initiatives	Building Our	The	Facilities	Alumni—	Human and	Securing the	How Do We
	Community of	Dickinson		"Descending	Financial	Future: The	Measure
	Students:	Student		the Old	Resources	Challenge	Our
	Enrollment	Experience		Stone		of Wealth	Success?
	Management	,		Steps"			

Library Services Department

Zero Base Budget Review			1	✓
2. ACRL Information literacy framework	1			/
3. Physical Collections		✓	✓	
4. Non-print resource assessment.			✓	
5. Library Space Alignment		1	1	
6. Institutional Repository Assessment	1			
7. Digital Humanities Support	1			

LIS Initiatives	Building Our	The	Facilities	Alumni—	Human and	Securing the	How Do We
	Community of	Dickinson		"Descending	Financial	Future: The	Measure
	Students:	Student		the Old	Resources	Challenge	Our
	Enrollment	Experience		Stone		of Wealth	Success?
	Management			Steps"			

User Services Department

Evaluate Laptop Data Encryption Options		✓	
2. Collaborative Writing	✓	1	
Implement a Technical Resources Knowledge Base		1	
4. Windows 10 and Yosemite	✓	✓	
5. Evaluate Current Sustainability Practices on Campus Systems		✓	
6. Alternative Paper Sources for Campus Copier Paper		✓	

LIS Initiatives, Departmental Narratives, Fiscal Year 2016

Divisional

1. <u>Digital Signage</u>. Source, purchase and implement a campus wide digital signage solution. This Initiative is dependent on funding approval.

Current Status:

- At present 18 monitors across campus use a variety of home grown and commercial products
- Not possible to align with college's visual identity program
- Not possible to program centrally to support events such as Homecoming, Commencement, and special events
- Not possible to leverage in the event of public safety emergency

Advantages of a single commercial solution:

- Align displays with college's visual identity
- Provide real time information feed from college website
- Support for college events such as Homecoming
- Pre-program times when displays are changed
- Accommodate different displays based on location such as Kline, HUB, and Library
- Allow for emergency public safety alerts

Academic Technology Department

- 1. Maker Space. Host or co-host two Dickinson Makes workshops or events.
- 2. <u>Mobile Projection Solution</u>. Identify and pilot a mobile projection solution for classrooms. Write brief report on alternatives and pros and cons and pilot in at least 2 classes in Spring 2016.
- 3. <u>Drupal 8</u>. Create a Drupal 8 development site to test core functions of current Drupal 7 and decide on migration timeline.
- 4. <u>Technology Evaluations.</u> Evaluate the following technologies for potential academic uses:
 - Gesture-based computing
 - Virtual Reality (ie: Google Cardboard)
 - Wearable (Quantified Self) technologies

12

Enterprise Systems Department

- 1. Oracle 12c Upgrade. With the release of version 12c, Oracle has announced plans to discontinue support of our current version (11g). We strive to maintain a balance between database stability and new features. FY 2016 is the right time to upgrade so that this balance is maintained. We are past the first release of 12c, which is typically "buggier" than subsequent releases. We will begin by upgrading smaller databases in our development environment and work our way towards more critical production databases, with our production Banner database being last of all. Outcome: All of our Oracle databases will be upgraded to the latest Oracle version (12c) by the end of July 2015.
- 2. Oracle Active Dataguard Implementation. Oracle Active Dataguard is a software extension to the Oracle Relational Database Management System, which is the backbone of all of the college's enterprise-class systems. This product provides for a standby database, which maintains up-to-the-moment synchronization with the primary database. Presently, our reporting database is refreshed directly from production resulting in negative impacts to transactional processing on production. Our production database underlies Banner and many of our complementary systems, which are affected when both pre-planned and unexpected query activity occur. Active Dataguard would allow all of this querying activity to be off-loaded from production, preventing performance degradation on our production systems, such as Banner. Since the standby database is kept in up-to-the-moment synchronization with production, it is an ideal resource to handle all of the query and backup load. The product would also provide us with the ability to failover to the standby in minutes in the case of a failure on production with no data loss. This product would also allow us to process and store fewer backups, since we would have a hot backup ready at all times. Finally, we would have the ability to upgrade our major systems with no significant downtime. Currently, these activities can result in downtime from several hours to a day or more. Outcome: Implementation of an up-to-the-moment standby database backup of our production data. We will also modify our backup strategy and our reporting strategy to account for the presence of a standby database. This initiative is pending FY16 funding. This Initiative is dependent on funding approval.
- 3. Oracle Advanced Security Implementation. Data breaches have become commonplace. The news is rife with stories of large commercial enterprises with state-of-the-art technology and millions of dollars at stake being outwitted by hackers. We are also aware of colleges and universities falling victim to data breaches. Security professionals tell us it's not a question of if we will experience a data breach, but when. We recommend taking further steps to protect the most sensitive data we store: personally-identifying data, payment data (PCI compliance), and data related to FERPA and HIPAA compliance. Oracle Advanced Security would provide us with the technology to both redact and encrypt at the database level. That means that sensitive data is protected, regardless of which application (Banner, Cognos, CLIQ, etc...) or person is attempting to retrieve that data. This solution encrypts data "at rest," which means it's not just encrypted for transport to the application asking for the data. Rather, it's stored in that encrypted state all the time--before an application or person tries to retrieve it. In the event an attacker was able to penetrate the layers of our firewall, they would be met by data they would not be able to decipher because of the redaction and encryption. This Initiative is dependent on funding approval.

Outcome: Implementation of Oracle Advanced Security module. Develop and execute a plan a plan to identify and redact/encrypt sensitive data at the database level. This initiative is pending FY16 funding.

4. <u>ColdFusion Server Upgrade.</u> ColdFusion is the primary Web application development environment for the college. We are running two versions of the software which will be migrated to a single, updated environment. The upgrade is necessitated by the aging out of our current versions and compatibility with expected upgrades in the Oracle database software. Architecture changes will reduce the number of ColdFusion software licenses and number of servers required, thus reducing costs to operate and maintain custom Web applications. Planning currently is underway with migration of software expected to be complete during the summer of 2015. Outcome: All ColdFusion software will reside on a single system with the most recent version of ColdFusion.

- 5. Cognos Upgrade. Cognos is the primary business reporting tool for the college. We will be upgrading the existing software to allow us to access improvements in mobile reporting and data visualization. The upgrade itself will happen during the summer of 2015. This will require a wide-spread effort among functional users to test existing reports. Once the upgrade is complete, we will be reviewing the possibilities for enhanced delivery of reports to mobile devices and for increased application of data visualization for use in strategic reporting. Outcome: The Cognos reporting platform will be upgraded to the most recent version. A report will be developed to identify the most promising new features for enhanced report delivery. This report will also identify 2-3 reporting projects that will utilize the new features identified. These reporting projects will be completed by June 30, 2016.
- 6. Addition of Personalized Content to College Mobile Application. As part of the redesign of the college Web sites and Gateway portal over the past year, we have selected a new mobile application provider. We are in the process of migrating existing application functions to this new platform for release late in the spring of 2015. As a second phase, we will be integrating the mobile application with a set of delivered functionality for accessing some Banner content, like student schedules, grades, etc. Initial research will take place in fiscal year 2015, but the bulk of the development will be done in fiscal year 2016 with an eye toward delivery in the fall of 2015. Outcome: An enhanced mobile application with the capabilities for students and faculty to access personalized content from the Banner system.
- 7. <u>Degree Works Implementation</u>. The College currently uses Banner CAPP degree audits to track a student's progress toward completion of degree requirements. Students are able to conduct simple 'what if' degree analysis using CAPP. CAPP will be replaced by a more robust degree audit system that functions as a student planning, advising, degree audit and reporting tool. The Degree Works implementation is large in scope and will impact students, advisors and administration in the Registrar's Office; as such, the project will require careful organization and planning.

 Outcome: A Degree Works implementation project plan and timeline will be developed. Degree Works will be implemented as the new degree audit system for the college. The CAPP system will be retired. This initiative is pending FY16 funding. **This Initiative is dependent on funding approval.**
- 8. <u>Jadu-Nolij Web Integration and Deployment</u>. In order to simplify the processing of student and employee records, Enterprise Systems will be working with Jadu to integrate XForms Pro and Nolij Web to eliminate the manual tasks associated with scanning, loading and indexing documents into Nolij Web. Working with the Registrar's Office as a pilot case, three PDF forms will be developed as XForms. Completed submissions of the form will be automatically pushed to Nolij Web. A pilot scenario will also include setting up Nolij workflows for electronic approval of documents.
 - Outcome: Enterprise Systems will work with Jadu to develop and complete integration between XForms Pro and Nolij Web. The Registrar's Office pilot case will be implemented and then used to showcase the potential of this integration to other administrative offices.
- 9. <u>Human Resource Services Event Management Needs Assessment.</u> CLIQ Events was developed in 2009 to replace the many manual processes of event registration. Since this time there have been annual enhancements to the application, but the college is outgrowing existing capabilities. Enterprise Systems will conduct a needs assessment to identify gaps between the current system and what is needed in order to support the Human Resources Professional Development and Wellness programs. The completed assessment will also include recommendations for the path forward. Input from other offices will also be taken into consideration as the needs assessment is completed.

Outcome: A needs assessment will be conducted with stakeholders. Findings will be documented and will include identification of priorities for future action.

Infrastructure Systems Department

- 1. <u>Security technologies.</u> Evaluate the current security posture of the college's network and server infrastructure and recommend any changes or additions that will position the department to meet and mitigate current and future threats.
- 2. Office 365. Fully implement and integrate Microsoft's Office 365 cloud technologies with the campus infrastructure environment.
- 3. <u>Network Services Life Cycle Management and Replacement Schedule</u>. Develop and document a standard configuration matrix and effective life cycle replacement schedule for all equipment used in the campus network, server, wireless and telephony environments.

Library Services Department

1. <u>Zero Base Budget Review</u>. Conduct assessment of library fiscal management.

Outcome: Following the first year of ZBB, determine whether the calculations accurately anticipated needs.

2. <u>ACRL Information literacy framework.</u> Adapt forthcoming ACRL Information literacy framework for Dickinson College.

Outcome: Develop and implement plan, which may involve collaboration with CPC, attending training, involvement of faculty, etc.

3. Physical Collections. Organize physical collections to optimize discovery, convenience and effective use of space.

Outcome: Complete consolidation and rationalization of the print journal collection to accommodate changes due to collections and space decisions.

Outcome: Complete transition to primarily e-only government depository status.

Outcome: Continue storage facility mold mitigation materials review begun in prior year.

4. <u>Non-print resource assessment</u>. Conduct non-print resource assessment, in order to develop a strategy for employing economical and effective approaches to non-print access and acquisition.

Outcome: Analysis of assessment results of film use study from prior year to determine user needs and preferences. Conduct additional assessment if needed.

Outcome: targeted assessment of e-journals and databases to determine current use.

5. <u>Library Space Alignment</u>. Align use of library building spaces to meet current and emerging needs for curricular and research support.

Outcome: Implement main floor Writing Center space changes.

Outcome: Refine and implement Phase 2 of lower level Archives' digital scholarship space plan.

6. Institutional Repository Assessment. Assess value and impact of the Dickinson Scholar institutional repository.

Outcome: Recommendations for improvements and future development following two years of active use.

7. <u>Digital Humanities Support</u>. Build institutional capacity of, and operationalize support of, digital humanities activity within the library and across the campus

Outcome: Develop new capabilities for the Carlisle Indian School project in response to feedback from the 2015 NAISA annual conference.

Outcome: Secure collaborations with additional external organizations for the Carlisle Indian School project.

Outcome: Provide support and guidance to faculty, as needed, for their digital humanities efforts.

Outcome: Provide support to Mellon-funded post-doc for Digital Boot Camp and other Mellon grant activities.

User Services Department

1. <u>Evaluate Laptop Data Encryption Options</u>. Sensitive College data on College-owned laptops and hybrid devices is vulnerable to exploit on or off campus due to theft or loss of the system. As pointed out by the Emerging Technologies Working Group, encryption of data on these systems provides the College protection against data breach on these devices. This initiative goes toward minimizing the vulnerability of College data and preserving reputation.

Outcome: Evaluate the best methods for data encryption on College-owned laptop-style devices.

Collaborative Writing. Also posed by the Emerging Technologies Working Group, the Collaborative Writing initiative focuses on achieving the ability for document sharing, as well as, synchronous and/or asynchronous collaboration by two or more users during the creation/editing of files (eg. documents, spreadsheets, presentations, etc.). This initiative goes toward helping users make the most of existing technologies and more efficiently working together on-line.

Outcome: Consider the best methods by which document sharing and collaboration can be achieved for the College, implement the solution and provide training for its usage.

3. <u>Implement a Technical Resources Knowledge Base.</u> Often times a solution to an issue is discovered, but rarely recorded (in an easily searchable/discoverable manner) such that the same solution can be readily found again and applied to an issue without redundant troubleshooting effort. This initiative goes toward providing better custom support to end users.

Outcome: Evaluate and implement a knowledge base solution to house data intended to be used to streamline the capture, usage and dissemination of established technical practices.

4. Windows 10 and Yosemite. Both operating systems are soon to be ready for use on campus – Yosemite has already been released but suffers various issues which are expected to be resolved and Windows 10 is due out mid-2015. User Services will need to move forward with deploying these OSes to campus systems due to vendor hardware constraints and thus a deployment plan is required and training needs to be developed. This initiative goes toward proving a solid, up-to-date and uniform user experience across campus systems.

Outcome: Learn, configure, deploy and train the Windows 10 and OS 10.10 "Yosemite" Operating Systems to eligible campus devices.

5. <u>Evaluate Current Sustainability Practices on Campus Systems</u>. Campus systems are often left on for the purposes of allowing for the deployment of software updates/security patches and also for end user convenience in not wasting time waiting for a system to boot. New software and/or existing campus

strategies may be able to strike a better balance of security and convenience versus sustainability. This initiative goes toward supporting the College's sustainability efforts.

Outcome: Examine existing system sustainability practices with the goal of decreasing energy used by campus systems.

6. <u>Alternative Paper Sources for Campus Copier Paper.</u> Find alternative paper sources for the campus copier paper cost savings. This initiative goes toward supporting the College's budget and, hopefully, sustainability efforts if the correct source is found.

Outcome: Examine existing paper sources with the goal of lowering the College's paper budget.

17

LIS Planning Cycle

Phase		Process	Deliverable	Deadline or Date of Activity
1.	Capture Budget Requests	User Services requests for next fiscal year (1) SXC computing needs, (2) Academic Affairs Division classroom upgrades, (3) Classroom Renovation Working Group.	SXC computing needsClassroom upgrade needsNew instructional spaces	September – October
2.	Departmental Goal Setting	 Review current fiscal year Initiatives Review Dickinson College Strategic Plan Propose 2-3 goals per department Joint goals encouraged Draft departmental Initiatives sent as e-mail attachments from Directors to CIO 	CIO integrates into single working document	November – January
3.	Governance Review	 CIO reviews FY Initiatives with Information Technology and Services Committee and asks for comments. MG considers and makes any changes. 	LIS Strategic Plan FYXX (http://www.dickinson.edu/info/ 20393/library_information_services /2618/lis_strategic_planning)	February
4.	Planning and Budget Submission	Present LIS Budget Submission referencing: LIS Strategic Plan for FY, Final Version SXC computing needs Smart classroom upgrades Computing needs for new instructional spaces Major LIS related projects New staffing requests	LIS Budget Submission for next fiscal year	January - February
5.	Individual Goal Setting	Personal evaluation process based on previous calendar year performance relative to departmental Initiatives	Reviewsnap evaluations	February - March
6.	Compensation	Set compensation based on previous calendar year performance relative to departmental Initiatives	Communication to Human Resource Services	April
7.	Plan Alignment	 Receive confirmation of funding levels from P&B after approval from Trustees Finalize alignment of personal goals and LIS Strategic Plan 		May
8.	Assessment	Assess progress against previous year's LIS Strategic Plan for FY	LIS Strategic Plan, FYXX, Assessment (http://www.dickinson.edu/info/ 20393/library_information_services /2618/lis_strategic_planning)	August