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Development of a Lean Management Program: A Pilot Program in the Li Ka Shing Library

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Development of a Lean Management Program: A Pilot Program in the Li Ka Shing Library

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Kevin Koh (Office of Business Improvement)

**ELEC - European Lean Educator Conference, Stuttgart
2014 September 17-19**

Agenda

- About Singapore Management University
- Background to the campus Lean Six Sigma initiative
- Library participation in initiative
- Concerns, challenges, staff feedback
- Introduction to Lean Management program
- Example of the first “clinic”
- Outcomes & next steps

SMU Chronology

- **1997** Singapore government conceives SMU
- **2000** SMU opens to 300 students in Bukit Timah Campus
- **2005** Library opens its doors (2,500 students)
- **2006** Official opening as Li Ka Shing Library
- **2013** SMU – 8,000+ students (ug and pg)

SMU Today

- 6 Schools – Business, Economics, Accounting, Information Systems, Law, Social Sciences
- Broad based education, small classes, interactive tutorial style learning
- International experience, community service, internship
- 6 buildings at the heart of Singapore

Singapore National Museum



Singapore Art Museum



Our Passion, Our Commitment, Your Advantage

Li Ka Shing Library



2012 State of the University Address

New Initiative:

Enhance Operational Strength

- Business Process Improvement Programme (BPI)
- Responsibility Centre Accounting (RCA)

http://www.smu.edu.sg/sites/default/files/smu/downloads/state_of_the_university_address_2012_transcript.pdf

Current Approach & Status

Current Approach

Deploying Improvement efforts

For Black Belt (BB) projects

- Identification of issues
- Prioritization of project ideas
- Scope project through engagement

For Green Belt (GB) projects

- Projects related to GB department identified by GB & supervisor/HOD

Programs

- Lean Six Sigma Green Belt for staff
- MGT317 – Talent Management – Black Belt certification

Where are we today?

Black Belt Projects

- 3 completed
- 3 in Control phase
- 6 in Improve phase
- 3 in Define phase

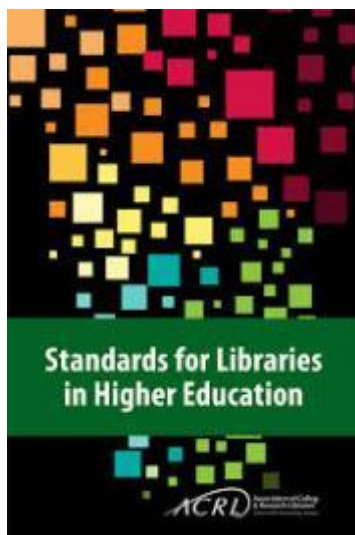
Green Belt training & certification

- 5 training waves (3 sessions x 2 days)
- Wave 6 Session 1 of 3 in Oct 2014
- 5 Green Belt certified in Mar 2014, anticipating 1 more batch of certification for 2014

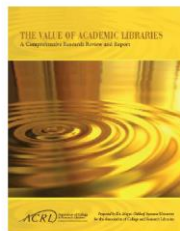
Status as of 8 Sep 2014

2013 Library Initiative Culture of Assessment

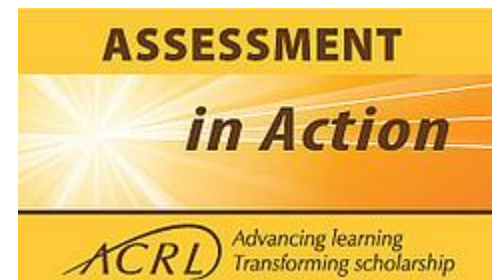
... an organizational strategy requiring decision-making based on "facts, research, and analysis, and where services are planned and delivered in ways that maximize positive outcomes and impacts for customers and stakeholders (Lakos & Phipps, 2004)."



Value of Academic Libraries Report



Freely available
<http://acrl.org/value>



Our Passion, Our Commitment, Your Advantage



Libraries

Library Participation

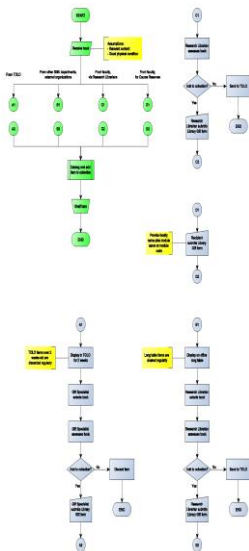
We leveraged the Lean Six Sigma Green Belt training to:

- Prepare for Responsibility Centre Accounting
- Culture of Assessment initiative
- Highlight professional development trends
 - Building management competencies
 - Planning, Organizing, Leading, **Assessment**
 - Systems thinking, problem solving, visioning
 - Accountability, responsibility, transparency
 - Collaboration, communication, continual learning
 - Continuous improvement**, Respect for people

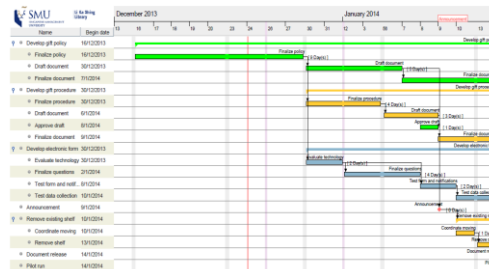
Library Participation

Since Fall 2013, approximately 55% of the library staff have completed the Lean Six Sigma Green Belt training and a project.

Workflow (After Improvement)



Tasks & Schedule



Course Reserves : Process Review and Improvement
(Lean Green Belt Project)

Lin, Nora, Veronica

Lean Improvements

Category	Improvement
Inventory / 5S	<ul style="list-style-type: none">• Filter early to prevent unwanted items from piling up.• Remove untidy gift shelf which is no longer necessary.
Wait / pull / one piece flow	<ul style="list-style-type: none">• In-tray ("Gifts for cataloging") within peripheral vision of Gifts Specialist (visual trigger).• Electronic form notifies Gifts Specialist upon new entry.• Research Librarians only need to assess items that go to them directly, straightaway.
Over-processing	<ul style="list-style-type: none">• Remove unnecessary confirmations.• Reduce the number of people involved in process.
Defect	<ul style="list-style-type: none">• Redesign and replace blue / white slip with an electronic form to reduce ambiguity, missing checks and human errors.
Not using employee's intellect	<ul style="list-style-type: none">• Empower Gifts Specialist to make decisions about item suitability and bibliographic information.

Concerns & Challenges

Staff Concerns

- Increased workload
- Form of micromanagement
- Focus on output/efficiency

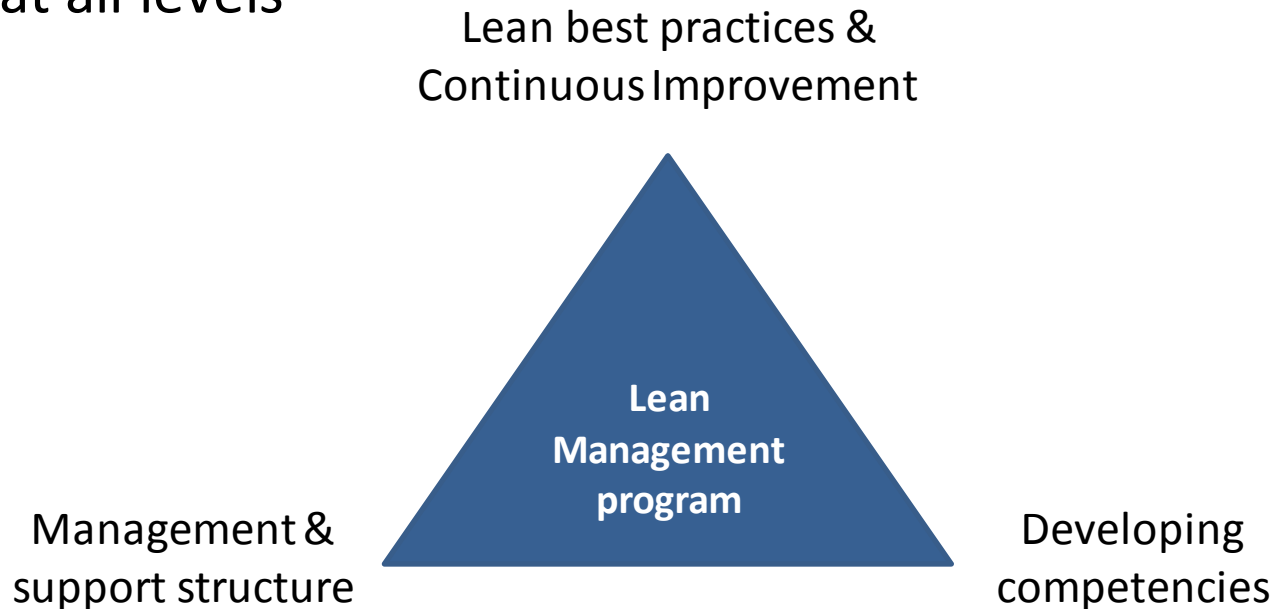


Management Concerns

- Sustainability of continuous assessment & improvement
- Return on investment
- Continued development of competencies
- Change management
- Outcomes over output

A Lean Management Program

A long term program organic to the department that drives continuous improvement efforts, culture change and development of the management and leadership competencies of staff at all levels



Why the clinic series?

1. To provide targeted sessions to deepen lean management capabilities
2. To provide a start point to understand the different tiers of users and examine our end-to-end value streams for what can be done more, what less or stop doing, and what can be done that has never been done before
3. To increase effectiveness in deploying improvement projects from both the users' (value) and library's perspectives (mission, cost to serve)
4. To build a culture of understanding value and continuous improvement from the user's perspective amongst library staff

How does the clinic series work?

- A clinic series comprises short interactive sessions that ultimately leads to a lean objective.
 - Example, defining value from the perspective of a selected group of users
- Each clinic session has follow-up actions and/or learning opportunities

Examples of Clinics

- Defining Value
 - Voice of the Customer, Value Stream Map
 - Research Assistant, Faculty, Alumni
- Defining Current State
 - Gemba “Go See”, Value Stream Map
 - Specific services (electronic resources, print resources, etc.)
- Defining Future State
 - Value Stream Map, Continuous Flow
 - Specific services, from perspective of selected user groups



First Clinic Example:

Lean Management Clinic Series:

Defining Value | Research Assistants

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Agenda

- Objectives
- Overall plan
- Key Concepts
 - Lean 1st Principle
 - Voice of Customers
 - Value Streams
- Exercises



Objectives

Objectives of Defining Value clinic series

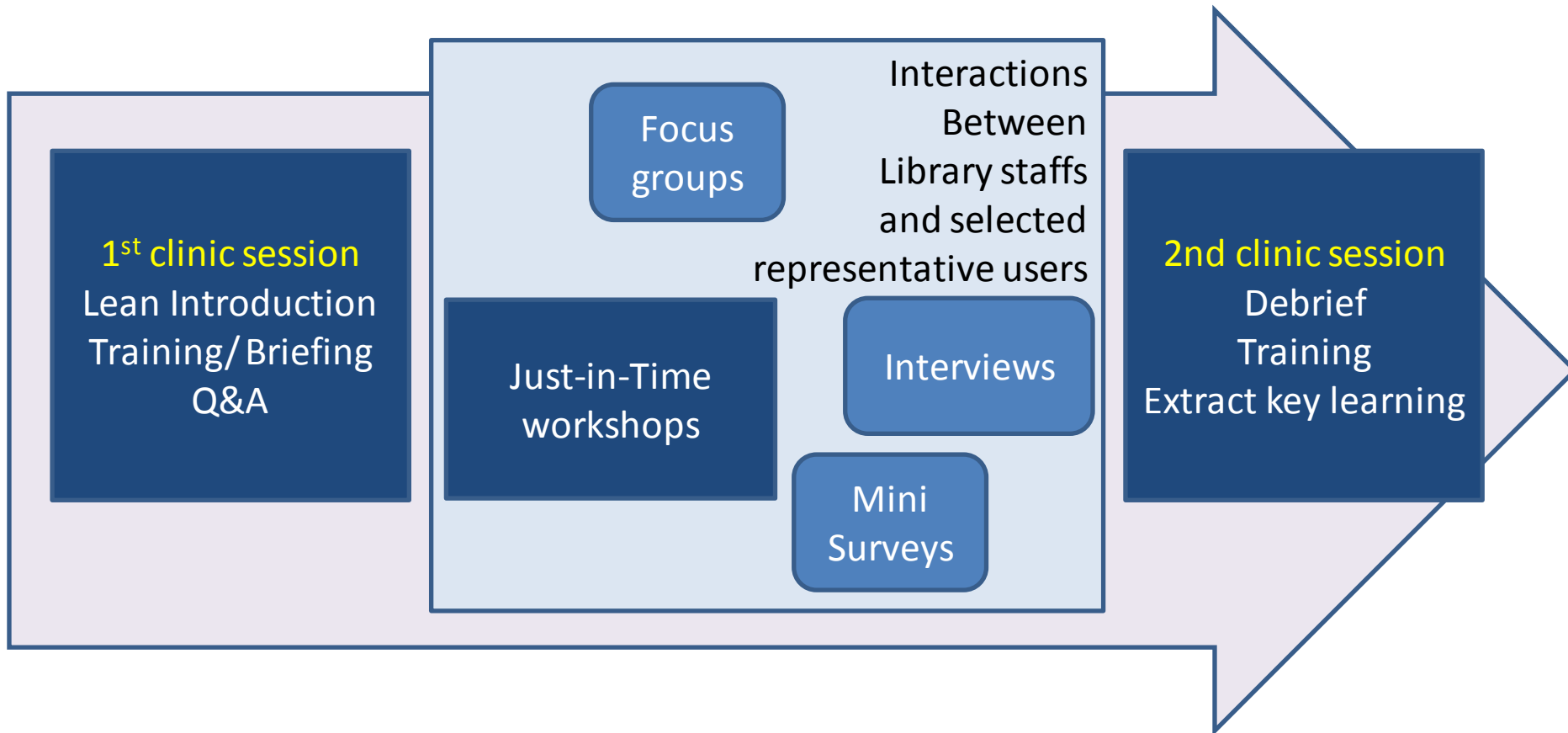
1. To understand the user space of selected group of users
2. To map how the needs of the users are met by existing value streams
3. To identify the needs of the users that can be met but not currently met by the library
4. To acquire information for subsequent value stream evaluation on activities that does not seem to add value to the users

Objectives of this session

1. To outline the overall plan of this clinic series
2. To highlight the key concepts that will be applied in this clinic series

The first principle in Lean is to define value from the customers perspective.

Overall Plan



Key concepts

In the order of application

- Lean 1st Principle
- Voice of Customers (VOC)
- Value Streams

Lean 1st Principle

Define value

From customer's perspective

Map Value Stream

Understand the current state including information flow & product/service transformation

Create continuous flow

Of delivery of value to the customer

Pull value

When continuous flow is not possible but needed

Strive for Perfection

When continuous flow is not possible but needed

Voice of Customers (VOC)

- Primary sources
 - Interviews
 - Focus Groups
 - Surveys
- Secondary sources
 - Data from current feedback mechanism

- Subject Guides
- Course Guides
- Informational Guides

Value Streams

- a. [Research Guides](#)
 - Some of the highly used Research Guides between Jan to Dec 2013 are:
 - o [How do I use Bloomberg](#) (79,516 views)
 - o [Business, Government and Society \(MGMT003\)](#) (6,788 views)
 - o [How do I use Datastream](#) (6,171 views)

- Example: Research Guide

Faculties
Students
Research Assistants
Teaching Assistants

Sequence of activities required to design, produce, and provide a specific good or service, and along which information, materials, and worth flows.

Faculties
Students
Research Assistants
Teaching Assistants

- Content Management System
- Integrated into the Online Catalog



Exercise – Part 1

Brainstorm on how the library services have helped or value-added in research work, for a research assistant (RA).

□ Write on a Post-It-Notes for each help or value the library services provide.

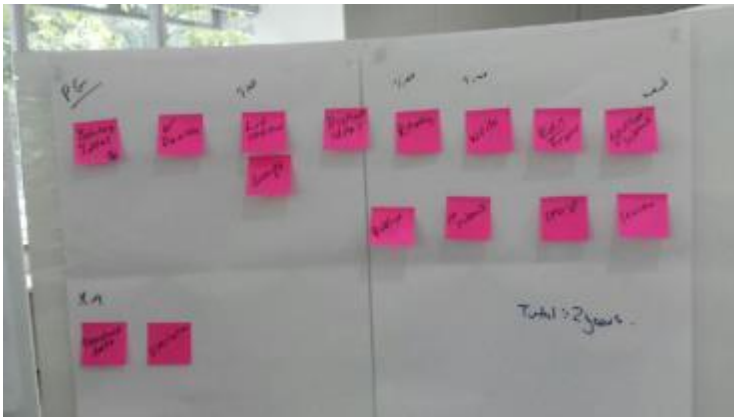
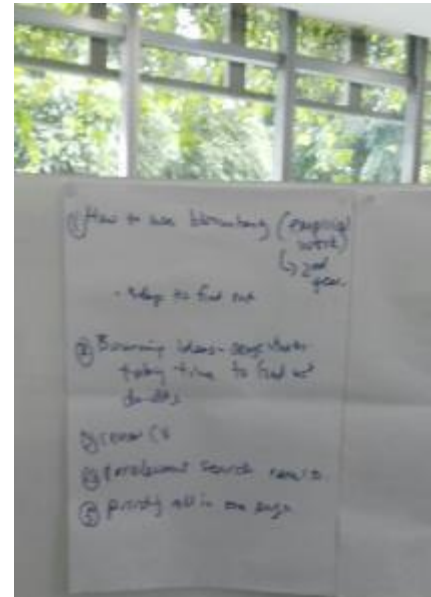


Exercise – Part 2

- A. Engage the guest RA to share the typical steps a RA takes to embark on a research work to its completion.
- Capture each step on a Post-It-Note, get an idea of the effort and time spent.
- B. In which of these steps/areas do you use the library services? What are they?
- Indicate for each Post-It-Note, a dot where library service is rendered and indicate what the service is.
 - Note & indicate non-library services or resources used.

Exercise – Part 2

- C. If you are granted wishes for your research work, what would they be? What would you value the most? What would you like to see go away or minimized?
- List them on a flip chart.
- D. Compare the outputs here with those from Part 1.



Observations

- Services geared toward undergraduate students
- Emphasis on teaching and learning
- Lack of awareness of the role, and research challenges, of the RA
 - There are sub groups: general post graduate, empirical vs. theoretical research support needs
- Services are traditional and ‘described’ or ‘marketed’ as such (ILL, DDS) – the value?
- The RA is not aware of some existing services
 - For example, Bloomberg Research Guide

Just-in-Time workshops

Types of engagements	Characteristics
Interviews	<ul style="list-style-type: none"><input type="checkbox"/> Interview is done with one participant<input type="checkbox"/> To learn about a specific customer's point of view<input type="checkbox"/> Requires some facilitation
Focus Groups	<ul style="list-style-type: none"><input type="checkbox"/> Interview is done with a few<input type="checkbox"/> Helps to organise information from the collective point of view of a group of customers that represent a segment.<input type="checkbox"/> Requires greater facilitation to maintain conducive group dynamics, participation and momentum is discussion progress<input type="checkbox"/> Synergy through sharing on common areas of interests
Surveys	<ul style="list-style-type: none"><input type="checkbox"/> No face-to-face<input type="checkbox"/> Measure the needs, importance or performance of a product, service, or attribute across an entire segment or group of segments<input type="checkbox"/> Furnish quantitative data.

Research Assistant Focus Groups

Stage 1:

- Respondents representing both theoretical and empirical modes of research
- Respondents representing the six schools (accountancy, information systems, social sciences, economics and law)

Stage 2:

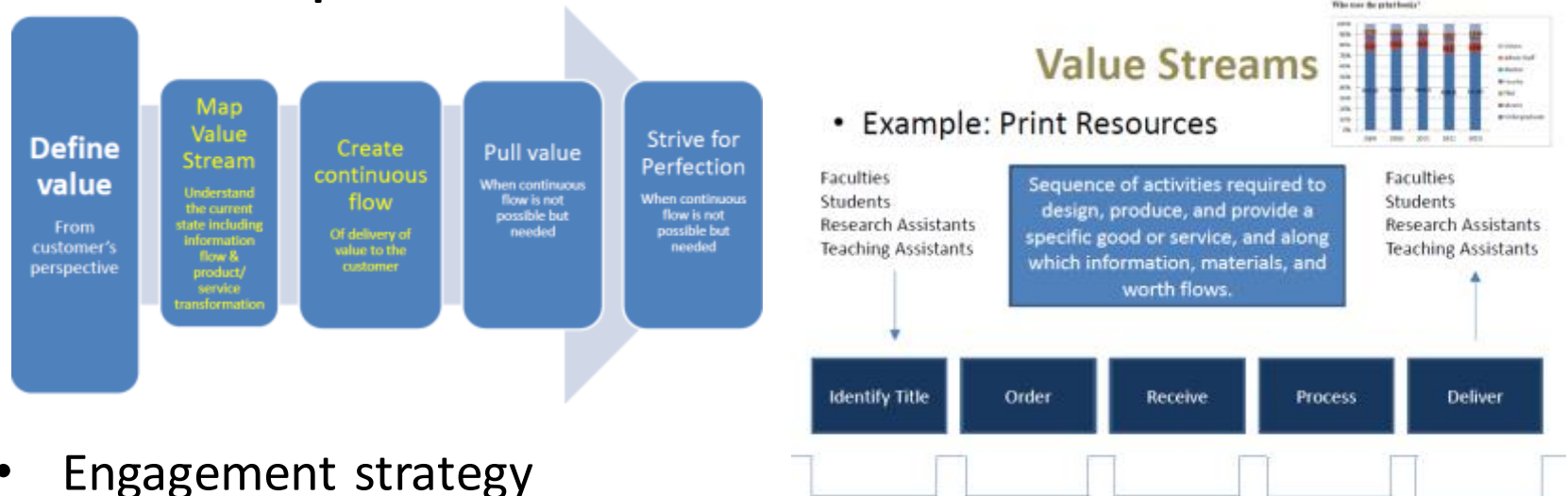
- Research Librarians (subject experts) involved in gap analysis

Summary, Learning, Outlook

- What have we learned?
 - Our perceptions & assumptions, not always on target
 - Opportunities for improvement and new services designed from the RA's perception of value
 - Opportunities for more cross departmental collaboration, i.e., Office of Research
- What's next, future clinics?
 - Improvements & new services informed by the "Voice of the Customer"

The clinic series continues ...

The RA involved in theoretical research values access to print resources



- Engagement strategy
- Resource discovery platform enhancements
- User-driven collection strategies
 - Print patron drive acquisitions
 - Enhanced Inter Library Loan and Document Delivery services

QUESTIONS?

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