



# Open Source, Community Development and Libraries From KUALI OLE to FOLIO at Lehigh University 开源、社群开发与图书馆：从Kuali-OLE到FOLIO

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美国理海大学图书馆获取服务部门主任 **Sharon Wiles-Young**



LEHIGH  
UNIVERSITY





# Outline 大纲

- Lehigh University facts 关于美国理海大学
- Open Source commitment- library system Kuali OLE 开源的承诺
- What learned from open source development during Kuali OLE project Kuali OLE项目从开源开发中学到了什么
- FOLIO open source development-What is different? FOLIO 项目有何不同?
- What is the reality of FOLIO and roadmap for implementation FOLIO 的实现与发展路线图的实际情况是什么
- What are Lehigh's expectations and aspirations for FOLIO
  - Examples of community development in FOLIO 理海大学对FOLIO的期望和抱负是什么。在FOLIO中社区发展的例子





# Greetings from Cornell and Lehigh University

来自康奈尔大学和理海大学的问候







Fairchild-Martindale  
Library



Linderman Library



# Lehigh University: Some Quick Facts

Acad



Undergraduate Students: 5020

本科生

Graduate Students: 2000

研究生

## **Library and Technology Services**

图书馆及科技服务:

Merged organization Libraries and Academic and Administrative Computing work together on teams

ILS Database size 数据量:1,081,417

Vendor based Integrated Library System  
- SIRSI migrated to open source Kuali  
OLE in August 2014 由厂商服务的图书馆  
系统转为开源的 Kuali OLE 系统



# MOVE TO OPEN SOURCE DEVELOPMENT

转向开源开发

Why Lehigh?  
为何这么做？

- Merged Organization 组织合并
- Risk takers in using new technologies and designing new services 使用新技术和设计新服务的风险承担者
- Support community development & development led by subject experts in libraries 支持社区开发和由图书馆学科专家领导的开发
- Move away from ILS to Library Service Platform 面向LSP
  - Allow to develop apps
- Open source commitments 开源的承诺



# ILS and Open Source: Why 图书馆系统与开源。为何？







## VuFind at Lehigh



- Open source software 开源软件
- Community source code- worked with others in the VuFind community to develop features  
与VuFind社区中的其他人一起开发功能
- Discovery layer used by Lehigh 资源发现层

Used VuFind as discovery layer with vendor ILS

Migrated to Kuali OLE continued to use VuFind





# Achievements with code 代码开发成就

## . API

- . OLE API - update ILL requests to received 更新馆际合作请求

## . Global Edit of data 数据的全局编辑

- . Create alerts in Circulation based on item types 依据馆藏类型产生流通模快的通知
- . Staff can work on large files - pull files from OLE database into MarcEdit/OpenRefine 批量编辑与更新数据库的MARC数据

## . SQL queries for reporting 用于产生报告的SQL查询

- . Budget and PO for reporting- automated reports 预算和采购订单的自动化报告
- . ILL Borrow Data and circulation data 馆际合作借用数据和流通数据



# Data Accessibility and Where is your Libraries' Data??

## 数据可访问性和您的图书馆的数据在哪里??

### **Taking control of your library's data: A WorldShare Report Designer demonstration**

**Wednesday, July 31 at 2:00 pm, ET**

Join this 30-minute demonstration to see how WorldShare Report Designer uses your data in WorldShare Management Services to enable you to create custom reports, charts, and data visualizations. During this demonstration you'll

- see how your WMS data is pulled automatically, so you don't have to pull and align data in multiple formats from different systems;
- learn how the easy-to-use Web Intelligence interface saves you time;
- discover how the data is organized in logical, familiar categories, making custom report-building easy; and
- explore how you can take advantage of existing reports and modify them to fit your local needs.

**Register now**



# Library Data from Kuali OLE informing Book Purchasing

## 由 Kuali OLE 自动取得图书馆数据并通知图书采购

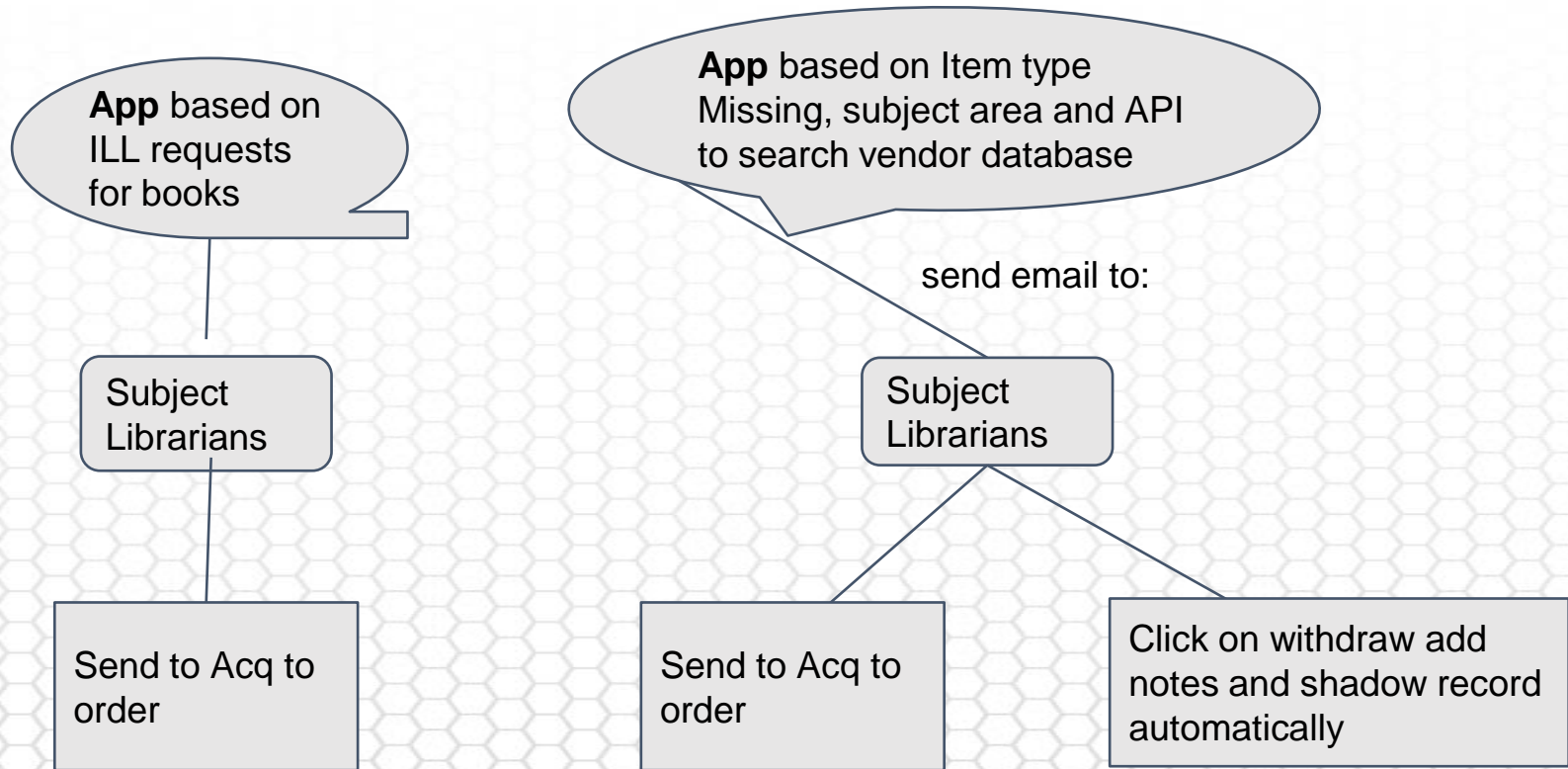
PALCI REQUEST (LEH-11318958)	CRAZY - A FATHER'S SEARCH THROUGH AM	2019-08-01 12:44:22.0	College of Engineering	UGRAD
PALCI REQUEST (LEH-11067431)	CRAZY - A FATHER'S SEARCH THROUGH AM	2017-11-30 16:18:00.0	College of Engineering	GRAD
PALCI REQUEST (LEH-11017172)	CRAZY - A FATHER'S SEARCH THROUGH AM	2017-08-29 14:49:51.0	College of Engineering	GRAD
PALCI REQUEST (LEH-10893450)	CRAZY - A FATHER'S SEARCH THROUGH AM	2016-10-28 16:24:02.0	College of Arts & Sciences	UGRAD
PALCI REQUEST (LEH-10855192)	CRAZY - A FATHER'S SEARCH THROUGH AM	2016-08-23 13:24:16.0	College of Engineering	GRAD
PALCI REQUEST (LEH-11284994)	BORN A CRIME - STORIES FROM A SOUTH A	2019-04-03 15:14:27.0	College of Arts & Sciences	UGRAD
PALCI REQUEST (LEH-11245768)	BORN A CRIME - STORIES FROM A SOUTH A	2019-01-25 12:59:57.0	College of Arts & Sciences	GRAD
PALCI REQUEST (LEH-11171619)	BORN A CRIME - STORIES FROM A SOUTH A	2018-08-22 13:51:03.0	College of Business & Economics	UGRAD
PALCI REQUEST (LEH-11101663)	BORN A CRIME - STORIES FROM A SOUTH A	2018-02-08 16:19:02.0	College of Engineering	UGRAD
PALCI REQUEST (LEH-11093725)	BORN A CRIME - STORIES FROM A SOUTH A	2018-02-01 16:23:33.0	College of Business & Economics	UGRAD





# Discovered the opportunities for workflow change

发现更改工作流的机会



## Patron Requests

+ New Request

Refresh

Status	Count
Patron Requested ⚠	6
Librarian Review ⚠	1
Item Ordered ⚠	1
Request Canceled ⚠	1



# USER or Patron Database--Webservices from Universities' Oracle ID Management Database to Kuali OLE



用户或读者数据库—从大学的**Oracle ID**管理数据库到**Kuali OLE**的网络服务  
**Patron**

[Create Bill](#) [View Bills](#)

Expand All

Collapse All

## ▼ Overview

Patron Id:	301779	Barcode:	803880985	Patron Type:	STAFF	Patron PhotoGraph:	
Activation Date:	07/01/2014	Expiration Date:		Source:	Lehigh Identity Management		
Statistical Category:		Active:	true				

## ▼ Contacts

### ▼ Name

Name Type: Title: Ms. First Name: Sharon Middle Name: Last Name: Wiles-Young Suffix: Default: true Active: true

### ▼ Address

Show 10 entries



Address Type	Line 1	Line 2	Line 3	City	State	Postal Code	Country	Address Source	Address Verified	Deliver Address	Begin Date	End Date	Default	active
Campus	30 - Lindeman Library								true	false			true	true
Home	730 Thirteenth Avenue			Bethlehem	PA	18018			true	false			false	true

Showing 1 to 2 of 2 entries

First Previous 1 Next Last







# FOLIO Community Development: EBSCO, Index Data and Libraries

FOLIO 社区发展:  
EBSCO, Index Data与图书馆



# Lehigh FOLIO team 理海大学 FOLIO 团队

- Subject Matter Experts 主题专家
  - **Mark Canney** Resource Access SIG 资源访问**SIG**
  - **Lisa McColl** Metadata Management SIG- subgroup work and testing 元数据管理**SIG**
  - **Doreen Herold** Reporting SIG 报告**SIG**
  - **Dan Huang** Testing for Resource Management 资源管理**SIG**
  - **Sharon Wiles-Young** Product Council member 产品委员会
- Technology team 技术团队
  - **Chris Creswell**- Sys Ops SIG and Data Migration & Kuali/OLE implementers group 系统运维, 数据迁移, **Kuali/OLE** 实施
  - **Chulin Meng**- Implementers SIG 实施**SIG**
  - **Michelle Suranofsky**- Users App and NCIP developer 用户**App**和**NCIP**开发人员



# NCIP - NISO Circulation Interchange Protocol

## NCIP - NISO 流通交换协议

### Standardized XML request & response messages

标准化的XML请求和响应信息

Use Case 用例:

Interlibrary-loan

Checkout Item

```
<?xml version="1.0" encoding="UTF-8"?>
<NCIPMessage v:version="5.6" xmlns:v="http://www.niso.org/2008/ncip" xmlns="http://www.niso.org/2008/ncip" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.niso.org/2008/ncip http://www.niso.org/schemas/ncip/v2_0/ncip_v2_0.xsd">
  <CheckoutItem>
    <InitiationHeader>
      <FromAgencyId>
        <AgencyId>Relais</AgencyId>
      </FromAgencyId>
      <ToAgencyId>
        <AgencyId>Lehigh University</AgencyId>
      </ToAgencyId>
    </InitiationHeader>
    <UserId>
      <AgencyId>LEHI</AgencyId>
      <UserIdentifierValue>32155763383</UserIdentifierValue>
    </UserId>
    <ItemId>
      <AgencyId>LEHI</AgencyId>
      <ItemIdentifierValue>LEH-201908221054</ItemIdentifierValue>
    </ItemId>
  </CheckoutItem>
</NCIPMessage>
```





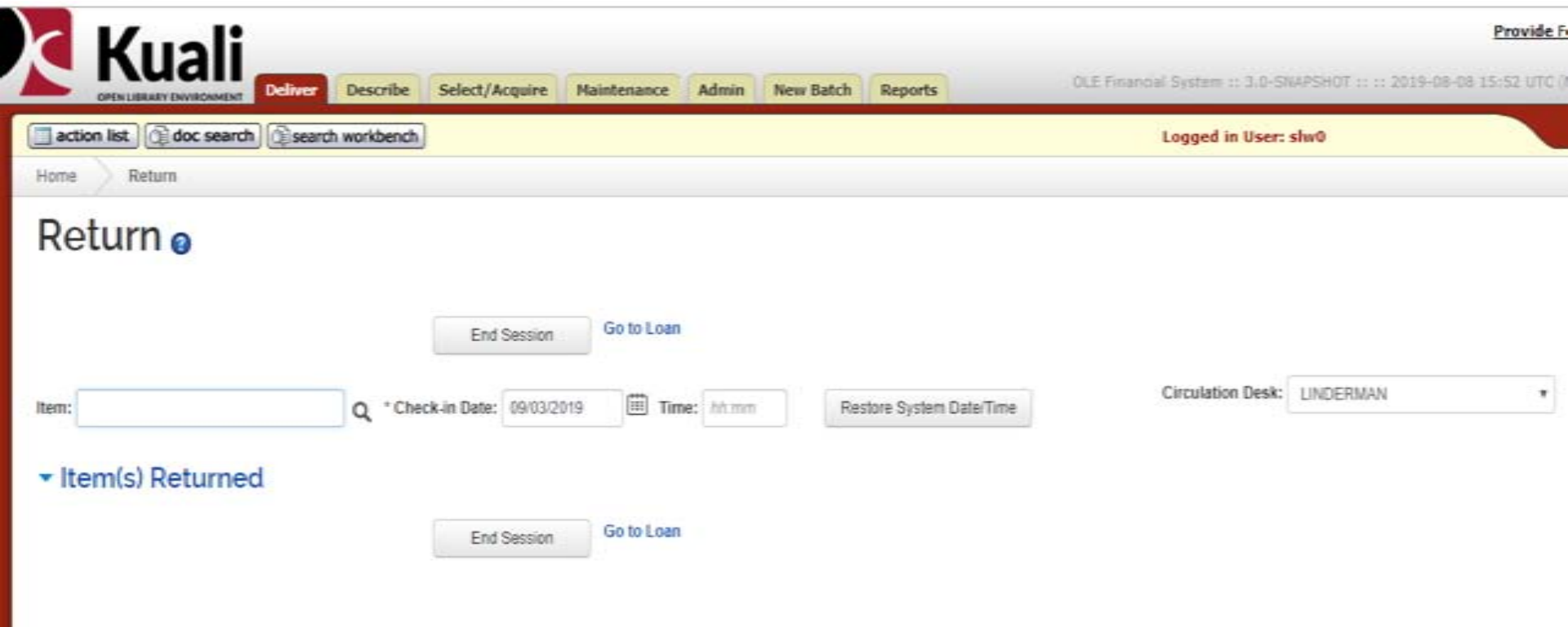
# FOLIO Development Highlights

## FOLIO 开发亮点

- ERM development happening along with Acquisitions app **ERM** 与采购 **App**一起开发
  - E-Usage App 电子资源使用统计 **App**
  - Organizations and Vendor records 组织和供应商记录
  - licensing and package management 授权许可和资源包管理
- Roadmap Q3 highlights 第三季开发重点
  - Working on invoicing 进行发票模块的开发
  - Advance features for circulation- patron requests 流通模块的高级功能 – 读者请求
  - NCIP and other integrations **NCIP**与其他集成
- Automated testing 自动化测试
  - Librarian experts starting to manually test functionality and develop more test cases
- Others starting to contribute code- Community coding 其他人开始贡献代码——社区代码
  - Community developers; Lehigh developer writing the NCIP coding and contributing that code, others coding Course reserves/ book lists and e-usage app 理海开发者贡献**NCIP**代码，其他开发者也贡献如课程保留书单和电子资源使用统计 **App**
- UX/UI focused example: 用户体验与用户界面的聚焦案例

# User interface with Kuali - OLE

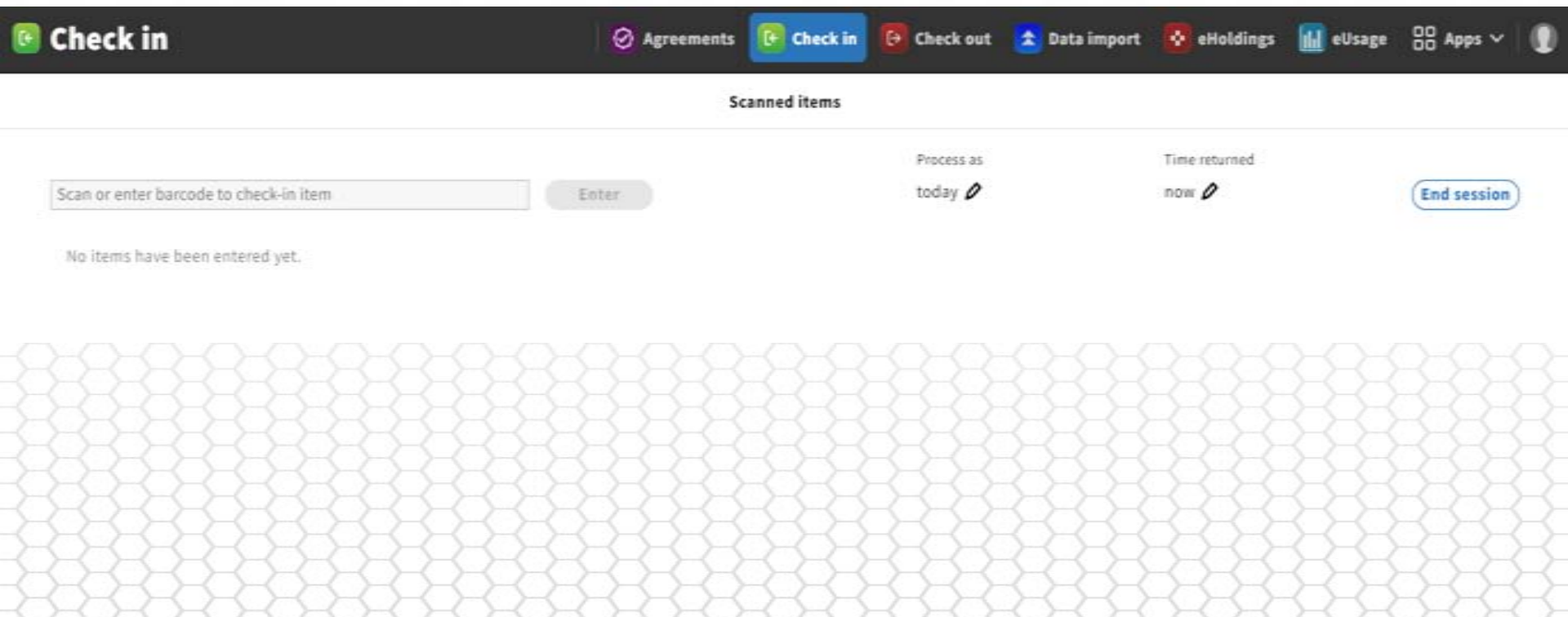
## Kuali - OLE 的用户介面





# User interface of FOLIO

## FOLIO的用户介面





# Chalmers first implementation in partnership with EBSCO- End of September 2019



The FOLIO team (Lisa Sjögren to the left) and staff at Chalmers Library testing the system. Photo: Ellen Åberg.

## Chalmers first in the world with a new unique library system



# FOLIO Q4 release FOLIO 第四季度发布版本

## December 2019

- . Q4 development will focus on features for the next early implementers going into production with full features/apps
- . Q4 的开发将关注下一梯次早期实现者的特性，这些实现者将使用完整的特性/应用程序投入生产
  - Performance testing 性能测试
  - Test integrations 测试集成
  - Metadata export and migration tools 元数据导出和迁移工具
  - Need to test TestRail 需要测试 TestRail





# Lehigh planning to implement with Q4 2019 or Q1 2020

Lehigh计划在2019年第四季度或2020年第一季度实施

- Test database up and running at Lehigh with Q3 loaded 测试数据库运行
- Testing migration of Lehigh data 测试**Lehigh**数据的迁移
  - Asking staff to test and review data 要求员工测试和检查数据
- Lehigh implementation of FOLIO will be hosted in the AWS cloud 将托管在**AWS**云中
- Lehigh will implement all apps beginning with Inventory, circulation and acquisitions and ending with ERM functionality 将实现所有应用程序，从库存,流通和采购开始，最后是**ERM**功能
  - ERM last because running another system Coral **ERM**放最后是因为目前使用**Coral**
  - analysis of use of eholdings and inventory 电子馆藏**App** 和 典藏**App**的使用分析
- Migration Lehigh's metadata into inventory and currently loading some organization/vendor data for acquisitions use 元数据迁移到 典藏**App** 中，并加载一些组织/供应商数据以供采购模块使用

# Inventory data 典藏数据

Inventory

Search & filter

All (title, contributor, identifier)

journal of popular culture

Search

Reset all

Resource type

☐ cartographic dataset

☐ cartographic image

☐ cartographic moving image

☐ cartographic tactile image

☐ cartographic tactile three-dimensional form

☐ cartographic three-dimensional form

☐ computer dataset

☐ computer program

☐ notated movement

☐ notated music

☐ other

☐ performed music

☐ sounds

Inventory

1 record found

New

Title

Contributors

Publishers

Relation

Journal of popular culture.

End of list

Instance record Journal of popular culture.

Electronic access

URL relationship

URI

Link

<http://literature.proquest.com/content>

<http://literature.proquest.com/content>

Subjects

Classification

Instance relationships (analytics and bound-with)

Holdings: Linderman Ground Floor

- Lower Level > 805 J861

View holdings

+ Add item

Item: barcode

Status

Material type

79331-1001

Available

journal

Holdings: Electronic > Electronic journal

View holdings

+ Add item



# Organizations/Vendor Data 组织和供应商数据

Organizations

Search & filter

All

Search

Reset all

Organizations status

☐ Active

☐ Inactive

☐ Pending

Address category

☐ Accounting

☐ Books

☐ Customer Service

☐ Databases

☐ Ebooks

☐ Econtent

☐ General

☐ Journals

☐ Licenses

☐ Primary

☐ Sales

Organizations

638 records found

New

Name	Code	Description	Organizations status	Vendor
ARKHIVE INC.	ARK		Active	Yes
ACCUITY INC.				
(FORM. THOMSON PUBLISHING)	POL		Active	Yes
ACM ASSOCIATION FOR COMPUTING	ACM-B		Active	Yes
ACM ASSOCIATION FOR COMPUTING	ACM		Active	Yes
ACOUSTIC SOCIETY OF AMERICA	ACO		Active	Yes
ADAM MATTHEW	AMP		Active	Yes
PUBLIC ADVANCE	ADV		Active	Yes

ACM ASSOCIATION FOR COMPUTING

Summary

Record last updated: 8/30/2019 8:48 PM

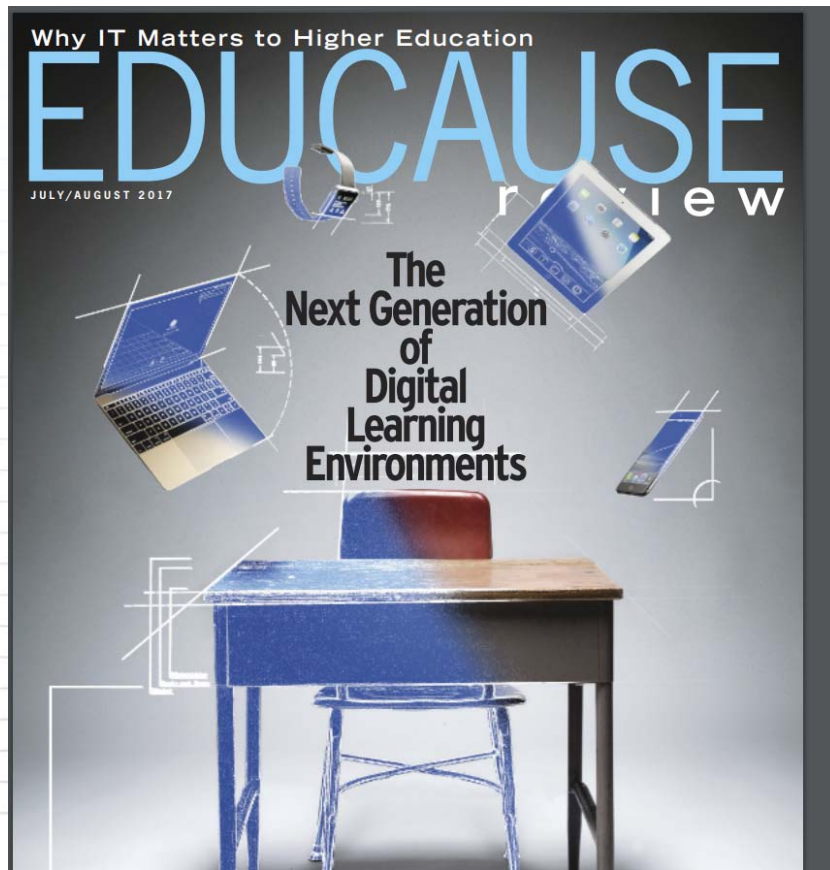
Name	Code	Accounting code	
ACM ASSOCIATION FOR COMPUTING	ACM-B		
Organization status	Default language	Vendor	
Active		<input checked="" type="checkbox"/>	
Description			
Alternative names			
Alias			
ACM-B			
Contact information			
Address			
Alternate			
Address 1	Address 2	City	State/Province/Region
Church St. Station		New York	NY
Zip/Postal code	Country	Categories	



## Aspirations for FOLIO at Lehigh 对FOLIO的渴望

- Use of tags and workflows 标记与工作流的使用
- Services for faculty, staff and students-requests and notifications 为教员、职员和学生提供的服务——请求和通知
- ERM- eUsage and cost relationships- trials and license negotiations ERM 电子资源使用和成本之关系-试用和许可谈判
  - Stop entering electronic resources in other software- CORAL, spreadsheets 停止在其他软件输入电子资源 – 如**Coral**和表格
- Use multi-tenant for consortium catalog and plans to centralize and assist other libraries with ordering or metadata processing 使用多租户联合目录，并计划集中和帮助其他图书馆进行采购或元数据处理
- More integration with University systems example 更多与大学系统集成例子

# Future: Next Generation systems and systems designed by community development



未来:下一代的系统和社区  
开发设计的系统

# FOLIO

*The Future of Libraries is Open*

THANK YOU 谢谢您

**Sharon Wiles-Young**

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