

Managing libraries in the 21st century



EVERY
CONNECTION
has a
starting point.

Matt Goldner
Product & Technology Advocate

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Today's agenda



- **Libraries are doing more than ever**
- **Silos, costs, time requirements, inefficiency are hindering libraries**
- **Cloud computing has helped other industries**
- **Web-scale Management can bring the power of the cooperative to core services**
- **Libraries will be freed to focus on innovation**

Have the systems we use to deliver services kept pace with the changing nature of our users and our collections?

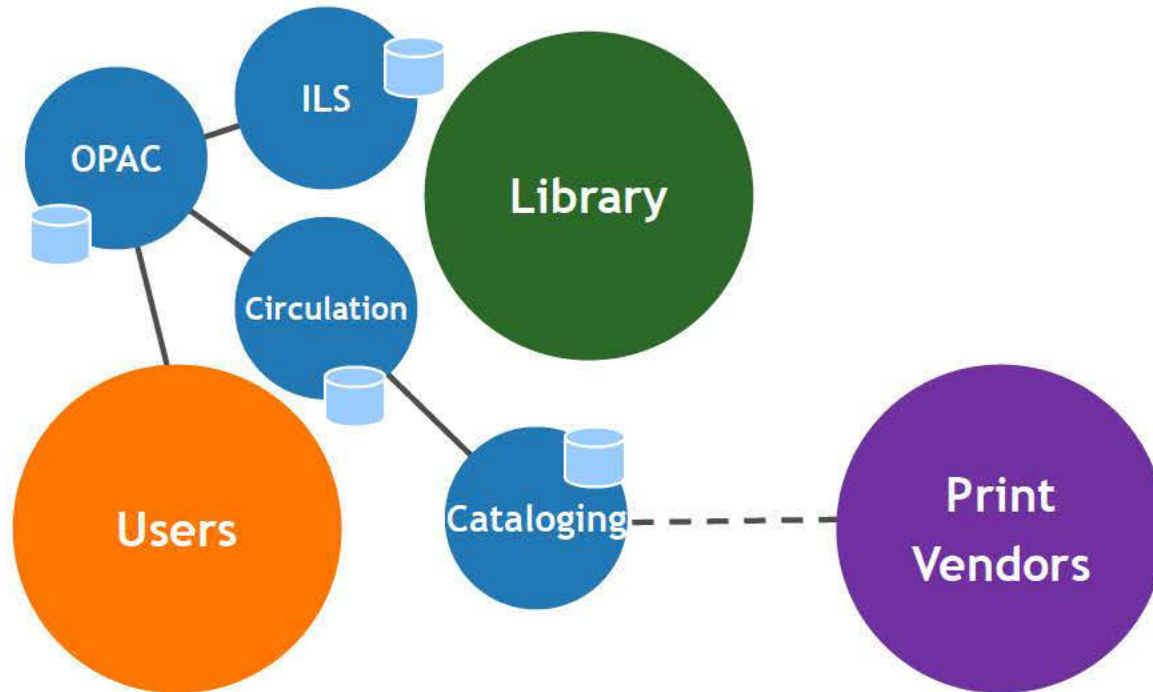
OR

Are libraries being held back by:

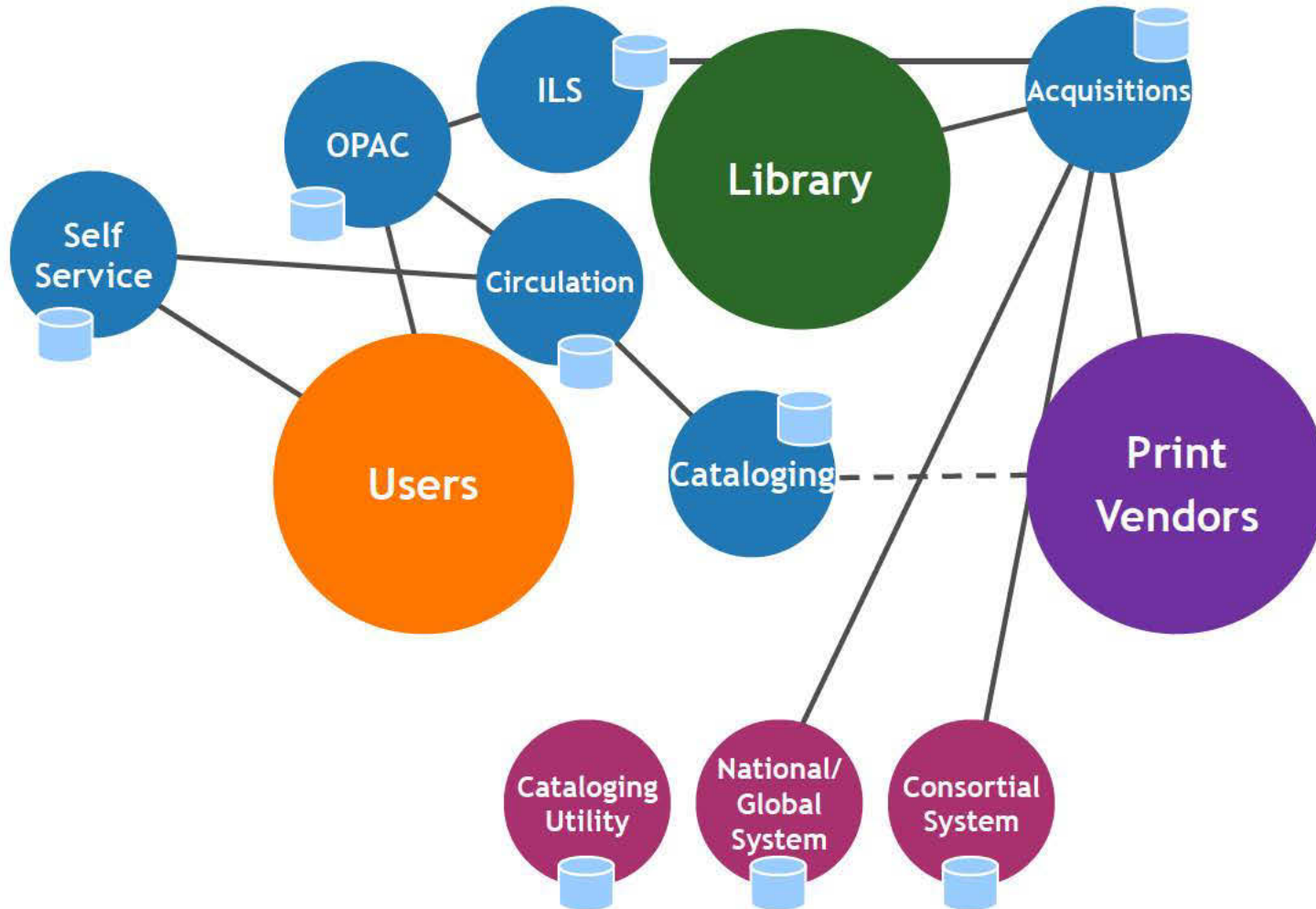
- **Many systems to support**
- **Large investment in maintenance**
- **A fragmented Web presence**

How doing more created the current library technology infrastructure

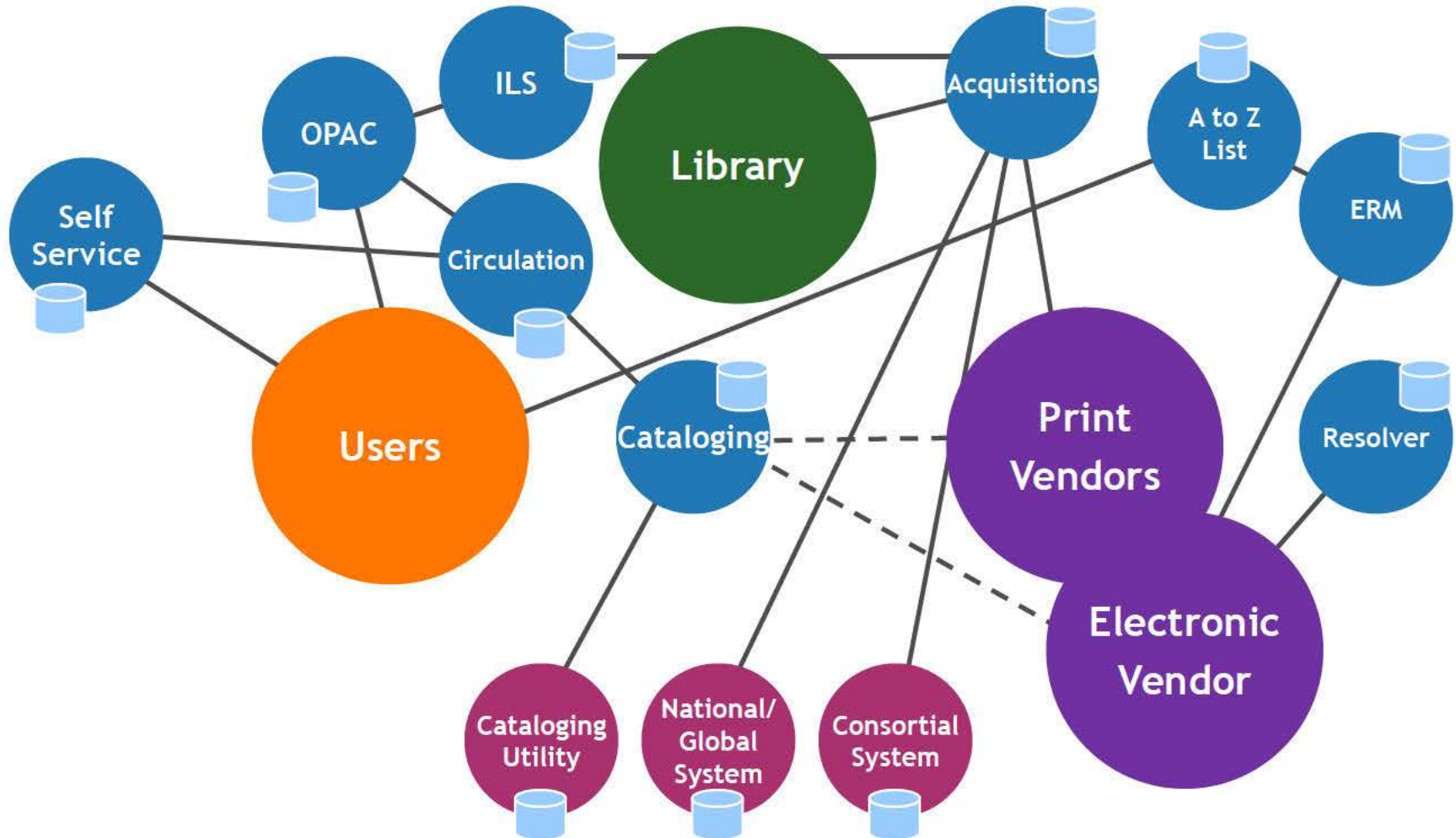
In the 1970s...



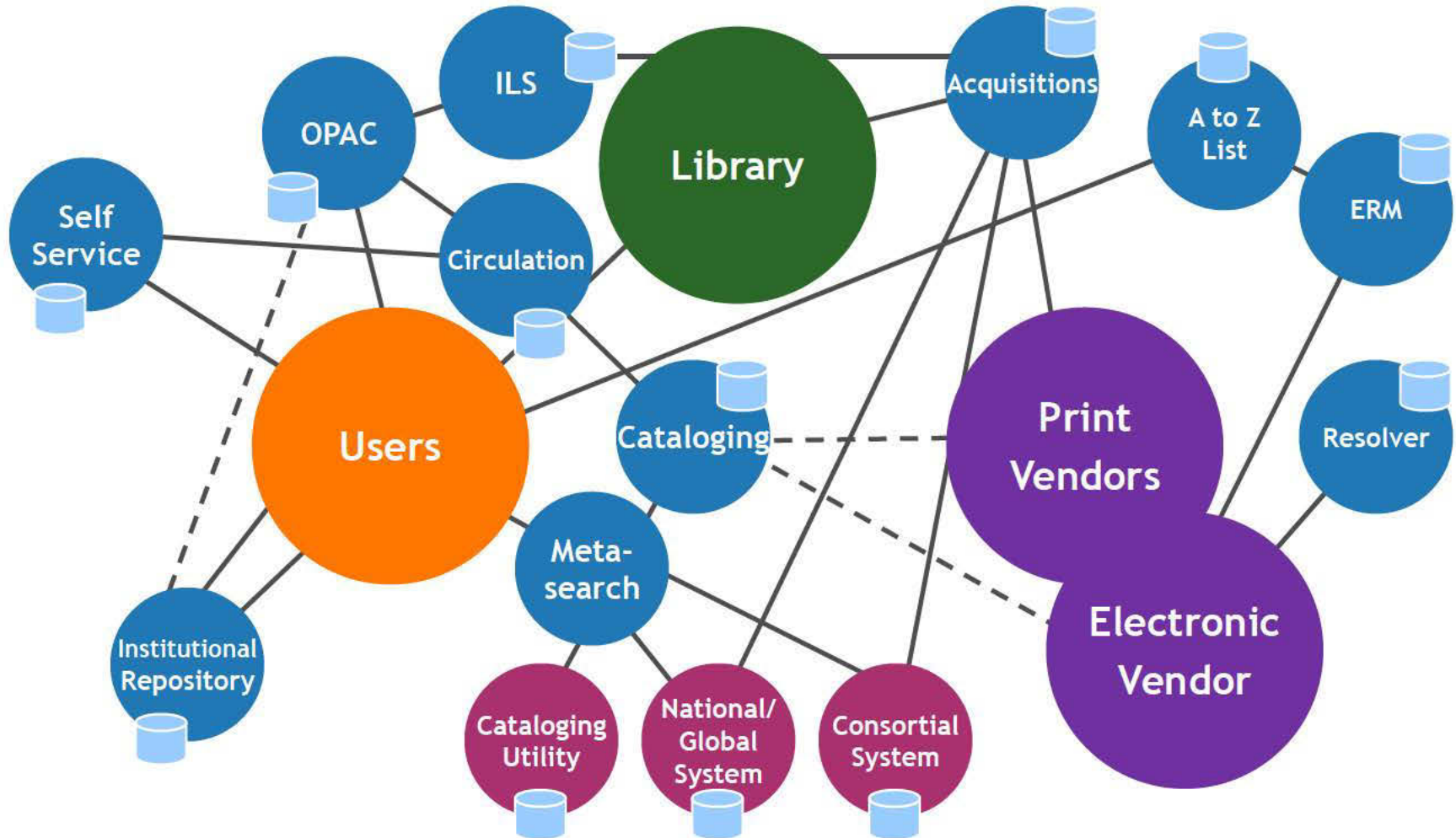
In the 1980s...



In the 1990s...



Today's library infrastructure



Cloud Computing



A style of computing in which scalable and elastic IT-enabled capabilities are delivered as a service to external customers using Internet technologies.

-Gartner Group

Simple: Web-based applications with shared data and services.

Cloud Computing



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Simple: Web-based applications with shared data and services.

Infrastructure

Platform

Applications

Services

KPMG





Lorcan Dempsey

“‘Web-scale’ refers to how major web presences **architect systems and services to scale as use grows**. But it also seems evocative in a broader way of the general attributes of the **large gravitational hubs** which are such a feature of the current web (eBay, Amazon, Google, Wikipedia, ...).”



Chris Anderson

The Web is all about **scale**, finding ways to attract the most users for **centralized resources, spreading those costs over larger and larger audiences** as the technology gets more and more capable.

~~Before~~ After cloud computing...

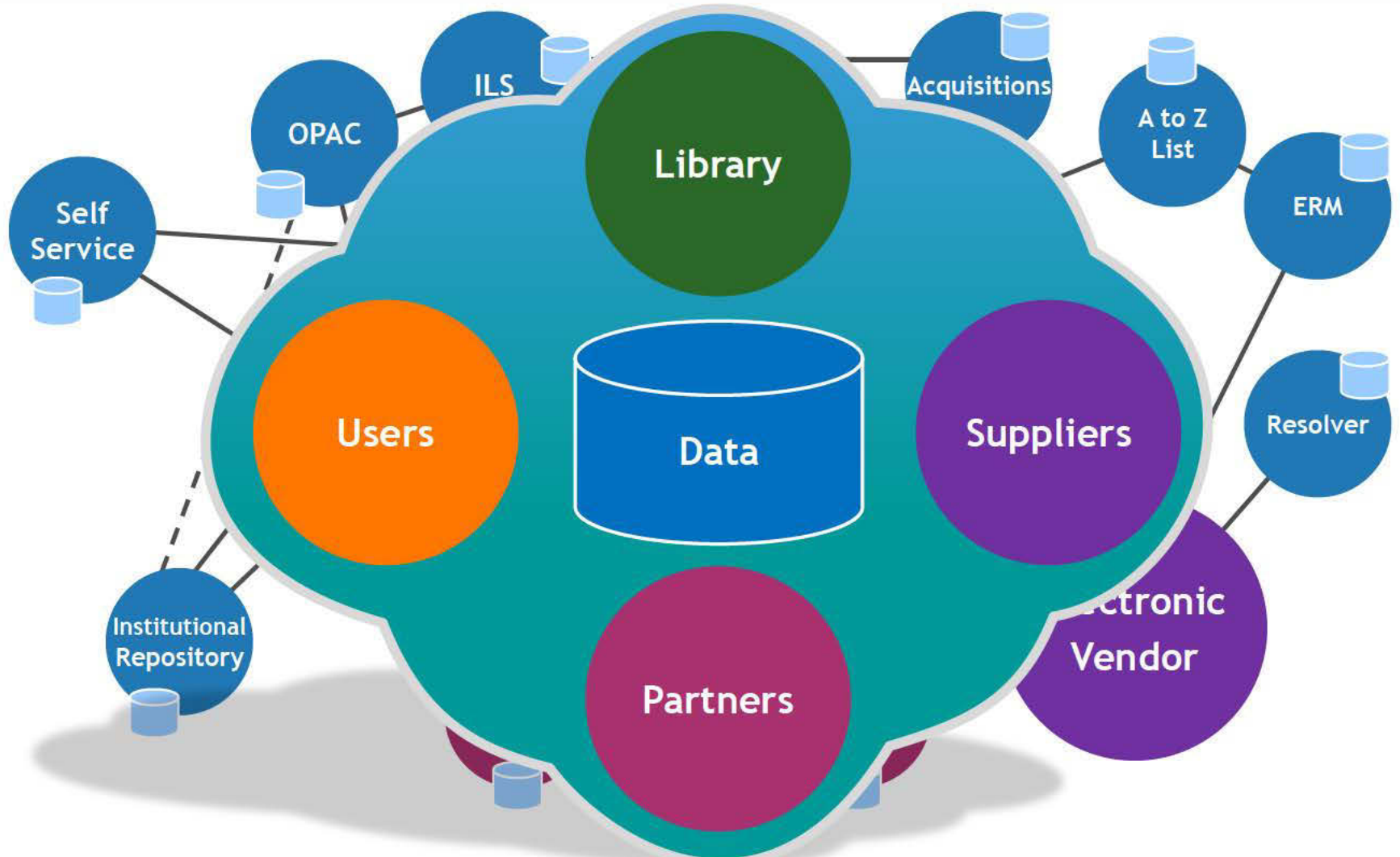
70%

INFRASTRUCTURE

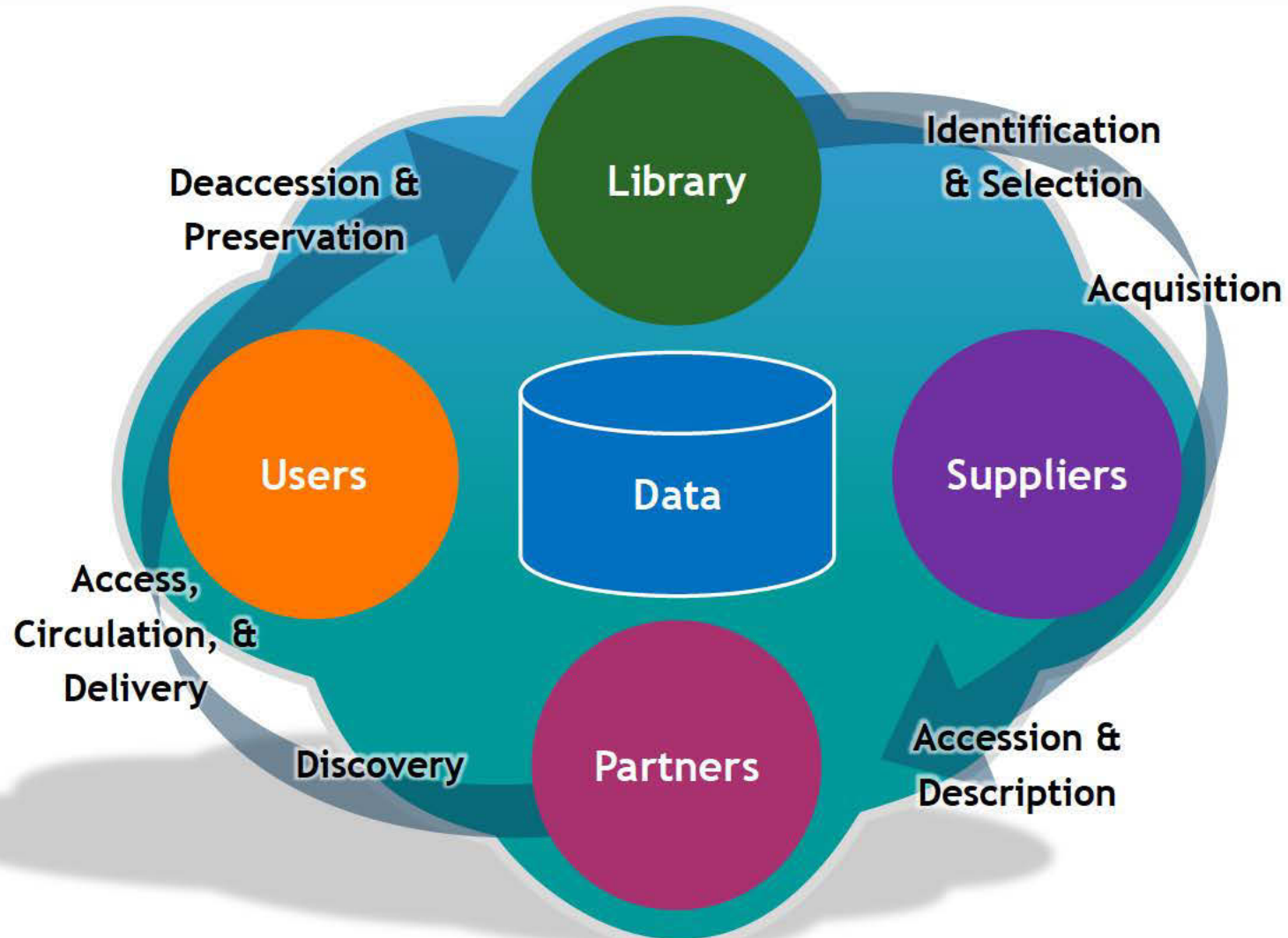
30%

INITIATIVE

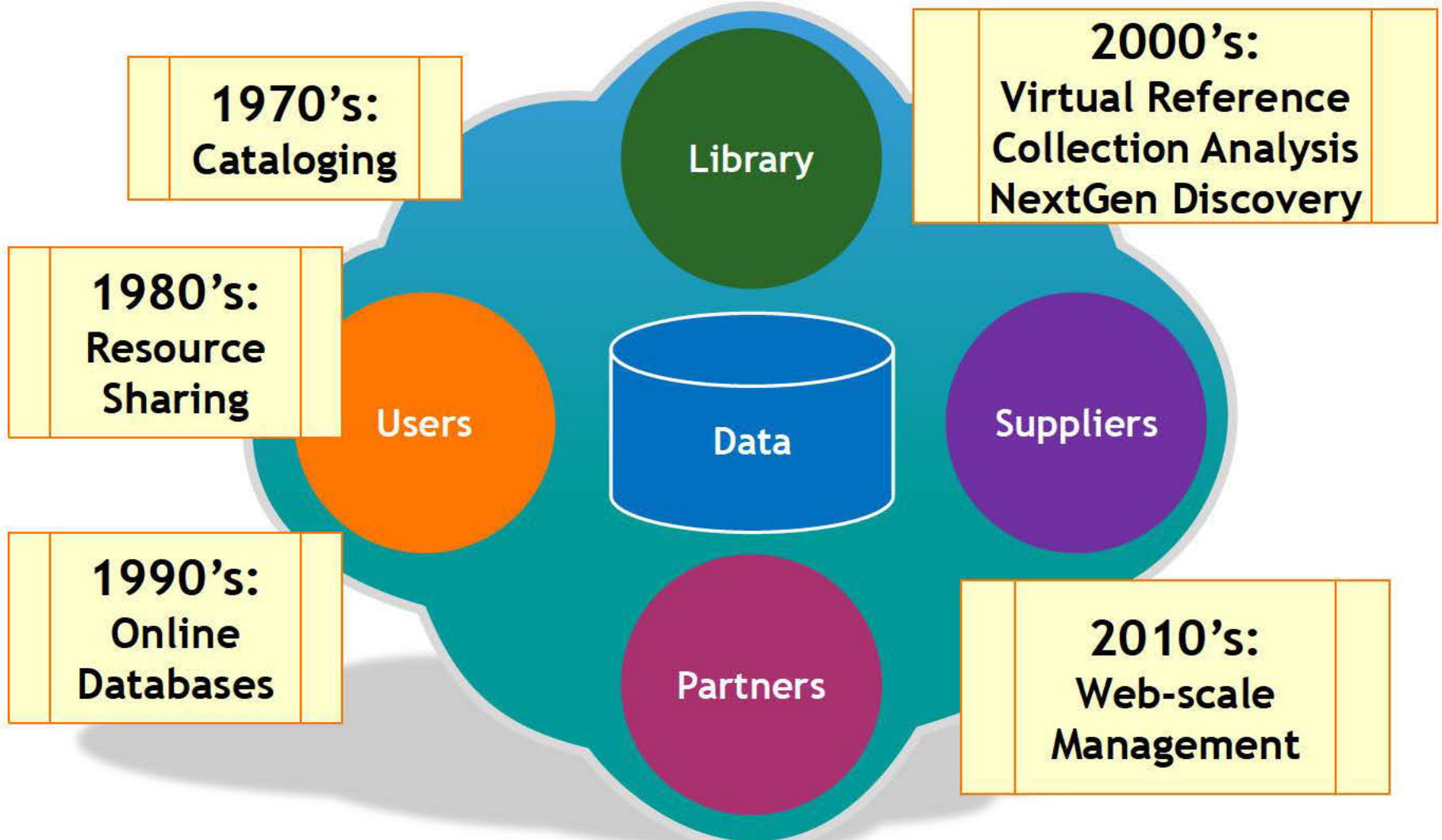
What if...



More efficient and flexible workflows



OCLC Members: Building Web Scale for 40 Years

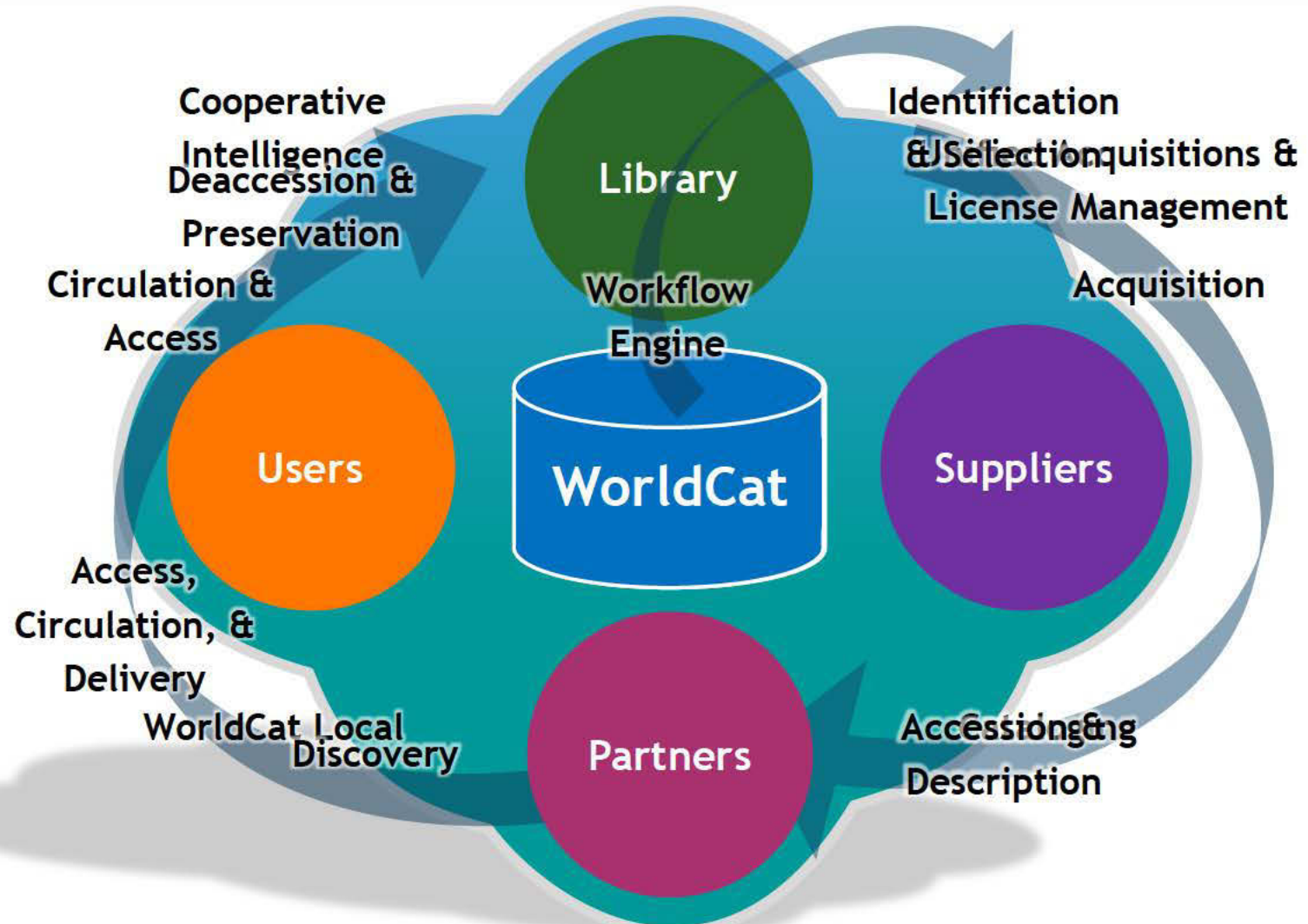


Summary of Web Scale benefits



- 1. Leverages shared data**
- 2. Improves interoperability**
- 3. Releases staff to create and implement strategic initiatives**

Web-scale Management Components



Web-scale Management Components

WorldCat



Heart of the System - 193M Records

- Member library records (75%)
- National library records (17%)
- Library of Congress records (6%)
- Vendor supplied records (2%)
- Data feeds from publishers for WorldCat and OCLC Knowledge Base (will become key part)

Simplifies identification and selection



Unified Acquisitions &
License Management

Web-scale Management Components: Unified Acquisitions & License Management



Unified Acquisitions &
License Management

Suppliers

Cataloging

Acquisitions for today's collections

- Shared vendor data
- Cooperative collection building
- Physical and electronic in same system
- Built-in negotiation and evaluation
- Integrated license manager

Makes process more efficient -
saving time and expense

Web-scale Management Components: Cataloging



Cataloging

Shared tools for data creation and enrichment

- Automated workflows for physical materials
- Automated workflows for electronic materials
- Automated loading of records from digital repositories

Simplify description and accession of materials

Web-scale Management Components: WorldCat Local



Discovery as users expect it

- Single search of all library collections - physical, electronic and digital
- Smart delivery resolver for best access
- Workflow tools that aid users in organizing and re-using information
- Integration with search engines and widgets to weave library into the Web

Increases usage of library materials

WorldCat Local

Web-scale Management Components: Circulation

Circulation for 21st century

- Intuitive staff interface that simplifies routine tasks
- No hardware or software to manage locally
- Foundation for building on cooperative collection development to lead to simplified collection sharing

Enables all forms of resource sharing to become network circulation tasks



Circulation

Users

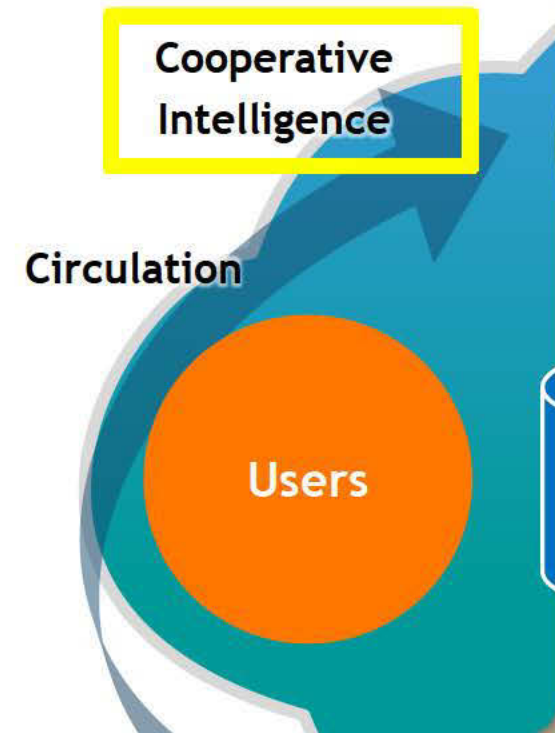
WorldCat Local

Web-scale Management Components: Cooperative Intelligence

Making your data work harder

- Cooperative collection development
- Better recommender services
- Cooperative storage and preservation
- Usage statistics and cost per use
- Collection profile sharing

Allows for better decision making



Web-scale Management Components: Workflow Engine



Flexible workflows

- Defined processes using abstractions in the librarian's domain (Subscriptions, orders, etc.)
- No hard-coded knowledge of the process definitions or controllers
- Institutions customize their processes or define new processes

Simplify integration of current and future services

Cooperative
Intelligence
Circulation

Library

**Workflow
Engine**

Users

Data

“Modular Staff Client”



OCLC™ Web-scale management service Beta MyLib Circulation Acquisitions Catalogue Reports Administration

Welcome, Bob Black | [logout](#)

Order Name: Januars Febon 2009 Vendor: Pustet Vendor Order #: from vendor confirmation (update) Purchase Order #: PO-2010-2 Status: OPEN

Comment

Results 1-10 of 12

Title	Format	Branch	Shelving location	Qty	Unit Price	Service Charges	Tax	Discount	Ship	Total
<input type="checkbox"/> New England transcendentalism and St Louis Hegel;]		East	S211	1	12.00	0.00	0.00	0.00	0.00	12.00
<input type="checkbox"/> The correspondence of John Locke and Edward Clarke;]		North	S113	1	78.00	0.00	0.00	0.00	0.00	78.00
<input type="checkbox"/> Frederick Locker-Lampson, a character sketch, with;]		West	S121	3	23.00	0.00	0.00	0.00	0.00	69.00
<input checked="" type="checkbox"/> Improving the quality of urban life, a program gal.]		West	S121	2	27.00	0.00	0.00	0.00	0.00	54.00
<input checked="" type="checkbox"/> Year of the cloud		West	S121	1	23.50	0.00	0.00	0.00	0.00	23.50
<input type="checkbox"/> Law in action: legal borders for natural resourc;]		North	S114	6	7.00	0.00	0.00	0.00	0.00	42.00
<input type="checkbox"/> The discovery of America,		East	S211	1	2.00	0.00	0.00	0.00	0.00	2.00
<input type="checkbox"/> Proposed changes in Internal Revenue Service confic;]		North	S116	1	45.00	0.00	0.00	0.00	0.00	45.00
<input type="checkbox"/> The communal system of Yugoslavia		East	S211	1	12.00	0.00	0.00	0.00	0.00	12.00
<input type="checkbox"/> The romance of research I		North	S111	1	34.00	0.00	0.00	0.00	0.00	34.00

Results 1-10 of 12

Select Unselect All Discounts Service Charge & Shipping Taxes

Grand Total: EUR 371.50

Settings

Show Order Information

Assist Patrons

Scan or type patron barcode...

Check In
Discover Items
Toolbox
Lewis Carroll
[Checkout](#) [Profile](#) [Account](#)

Account Overview

3 items checked out **0** requested items ready to pick up
3 items overdue **0** requested items not yet available
GBP0.00 current fine balance **0** items claimed returned

Scan or type item barcode...

 << first < prev **1** next > last >>

Title	Barcode	Out Date	Due Date	Renewed	<input type="checkbox"/>
The Rand McNally book of favorite pastimes	01235003	09/27/2009 04:00:00 pm	10/08/2009 04:00:00 pm	0	<input type="checkbox"/>
The Rand McNally book of favorite pastimes	01235002	09/27/2009 04:00:00 pm	10/03/2009 04:00:00 pm	0	<input type="checkbox"/>
The Rand McNally book of favorite pastimes	01235001	09/27/2009 04:00:00 pm	10/20/2009 04:00:00 pm	1	<input type="checkbox"/>

A platform where you build the future

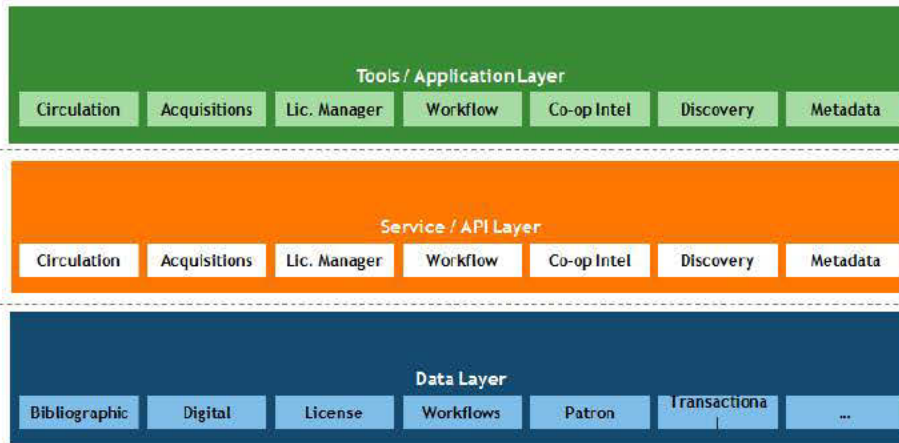


- The cloud should enable, not stifle library innovation
- More than discovery APIs
- Must enable access for local development and participation

How?

- Built with Service Oriented Architecture (SOA)
- Includes published APIs
- Creates a network of developers

Development Partnership Approach



OCLC:

- Service/API Layer
- 'Basic' Application Layer

LIBRARIES:

- Enhanced/Value-added Application layer
- Add to 'basic' application layer
- Service/API layer design input and pre-release usage

Advisory Council



Web-scale Management Services Library Advisory Council

Strategic direction, reality checks and moral support



Helene Blowers

Digital Strategy Director,
Columbus Metropolitan Library



Sarah McHugh

Statewide Projects
Librarian, Montana State
Library



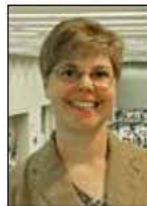
Andrew Pace

OCLC, *ex officio*



John Helmer

Executive Director,
Orbis Cascade Alliance



Mary Piorun

Associate Director,
University of Mass.
Medical Center Library



Jan Ison

Executive Director,
Lincoln Trail Libraries System



Tim Rogers

Executive Director,
NCLIVE



David Lankes

Associate Professor,
Syracuse University



John Teskey

Director of Libraries,
University of New
Brunswick

Web-scale Management Services Steering Committees

- Access services, technical services, systems and management workflow experts
- Comprised of pilot participants at the start

Test/pilot sites

- Orbis Cascade Alliance
 - Linfield College (with general assistance from the Alliance)
- Pepperdine University Libraries
- Idaho Commission for Libraries
 - Boundary Public, Payette County Public, CIN
- CPC (Craven, Pamlico, Carteret) Regional Libraries (NC)

Start imagining the - YOUR - future



“Today’s librarians are engaging information seekers wherever they are—at the beach, in the street, on the stage, on the Web—to extend their impact and set in motion growing waves of relevance and usage.”

OCLC NextSpace, Issue 13



ProBiblio, the Netherlands



Texas A&M University
West Campus Business Library



Johnson County Library, Kansas

"The mission of librarians is to improve society through facilitating knowledge creation in their communities."

R. David Lankes, Syracuse University
Keynote, 29th Annual Charleston Conference

Thank you