

# ***ILS in the Cloud: Promise or Peril?***

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and  
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# Outline

- Cloud
- ILS in cloud
- What's a catalog?
- Peril
- Promise
- Discussion



# Cloud



# Cloud Computing: What is it?

- a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction.
- **Attributes:**
  - on-demand self-service
  - broad network access
  - resource pooling
  - rapid elasticity (ability to easily scale up or down)
  - measured services



# Cloud Computing: What it isn't

- **Vendor-hosted systems with a new name**
- **Legacy applications with a new delivery model**

# Cloud service models

- Cloud computing providers offer their services according to three fundamental models:
  - Infrastructure as a Service (IaaS),
  - Platform as a Service (PaaS), and
  - Software as a service (SaaS)

# Infrastructure as a Service (IaaS)

- Managed and scalable processing, storage, networks, and other fundamental computing resources.

- Examples:

- Amazon (S3 and EC2)



- Savvis



- Terremark (Verizon)



- Rackspace



- Equinix



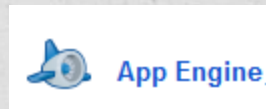


# Platform as a Service (PaaS)

- User-created or acquired applications made using programming languages and tools supported by the provider. The user does not manage or control the underlying cloud infrastructure, but has control over the deployed applications.

- Examples:

- Google App Engine



- Windows Azure



- Force.com





# Software as a Service (SaaS)

- the capability to use provider applications running on a cloud infrastructure. The applications are accessible from interfaces such as a Web browser.
- Examples:
  - Google Docs
  - Salesforce CRM
  - Microsoft Office 365



# Benefits of Cloud

- *Reduced Costs*
- *Increased Storage*
- *Highly Automated*
- *Flexibility*
- *Mobility*
- *Allows IT to Shift Focus*

# Cloud Computing: Heavily Hyped

All Mail Items - Mailbox - Robert Gerrity - Microsoft Outlook

Search Tools

Send / Receive Folder View Add-Ins Adobe PDF Search

subject:(cloud)

Your search returned a large number of results. Narrow your search, or click here to view all results.

From	Subject	Received	Size	C...	Outlo...	In F...
InfoWorld Today's Blogs	Cloud storage booming, but storms are brewing	Thu 4/26/2012 12:40 PM	26 KB		Mailb...	Inbox
IT News Alert	ESG - What's Needed for Cloud Computing	Thu 4/26/2012 6:26 AM	14 KB		Mailb...	Inbox
msnbc.com: Top msnbc.com he...	With Google Drive announced, what is the best cloud stora...	Tue 4/24/2012 4:04 PM	14 ...		Mailb...	MS...
Editor's Pick by Web Buyer's Gui...	The Perfect Cloud or the Perfect Storm?	Mon 4/23/2012 6:11 AM	19 KB		Mailb...	Inbox
Date: Two Weeks Ago						
Technology Product Update by ...	Cloud Control -- From Compliance to Vendor Selection	Fri 4/20/2012 9:15 AM	22 KB		Mailb...	Inbox
Backup & Recovery Bulletin	Includes: Cloud Backup Vs. Tape Backup - Which Is Better? F...	Wed 4/18/2012 8:18 AM	38 KB		Mailb...	Inbox
Date: Three Weeks Ago						
Cloud Computing Bulletin	Includes: Top 10 Cloud Based Email Providers in 2012 - Comp...	Fri 4/13/2012 8:50 AM	38 KB		Mailb...	Inbox
CIO Cloud Leadership Forum	Cloud strategies from Amazon and NASA	Tue 4/10/2012 2:10 PM	16 KB		Mailb...	inbox
Campus Technology Resources	April 19: GA State U. Shares Cloud Success Story	Mon 4/9/2012 12:03 PM	15 KB		Mailb...	inbox
Date: Last Month						
IT Solution Journal	Featured Resource: ERP and the Cloud: What Financial Servi...	Wed 4/4/2012 3:06 PM	18 KB		Mailb...	Inbox
Enterprise Applications Product ...	The Real ROI of Cloud Applications	Wed 4/4/2012 1:25 PM	22 KB		Mailb...	Inbox

**Ready or Not, Here Comes the Cloud**

Network World Online Resources <nwonline@online.networkworld.com>

Sent: Wed 5/2/2012 12:48 PM  
To: Robert Gerrity

There are various levels or degrees of "cloudness". [See what works for you>>](#)

**NETWORKWORLD**

**Learn More**

**Ready or not, here comes the cloud**

Clouds do many things well, but fixing performance problems isn't one of them.

source: Bob's mailbox

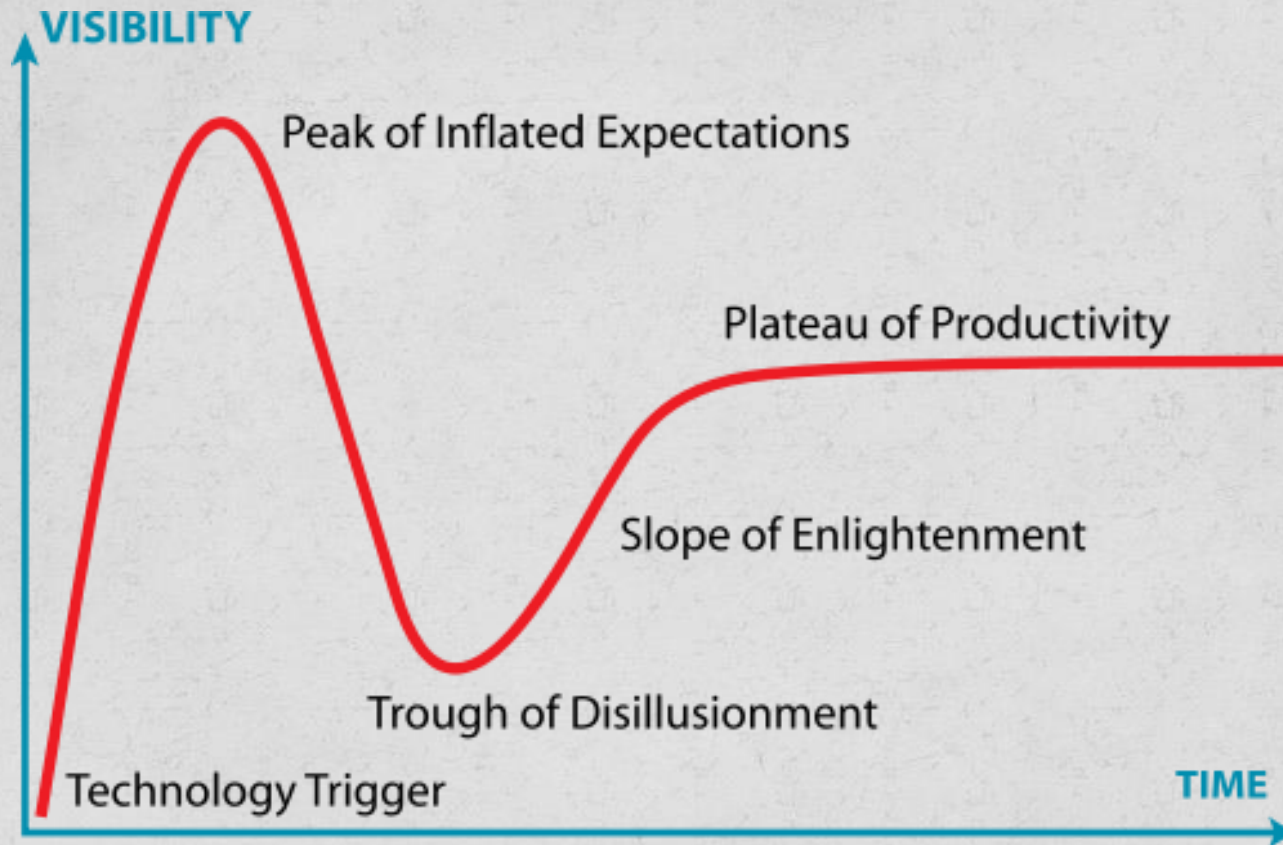
NETSL Conference

5/6/2012

11

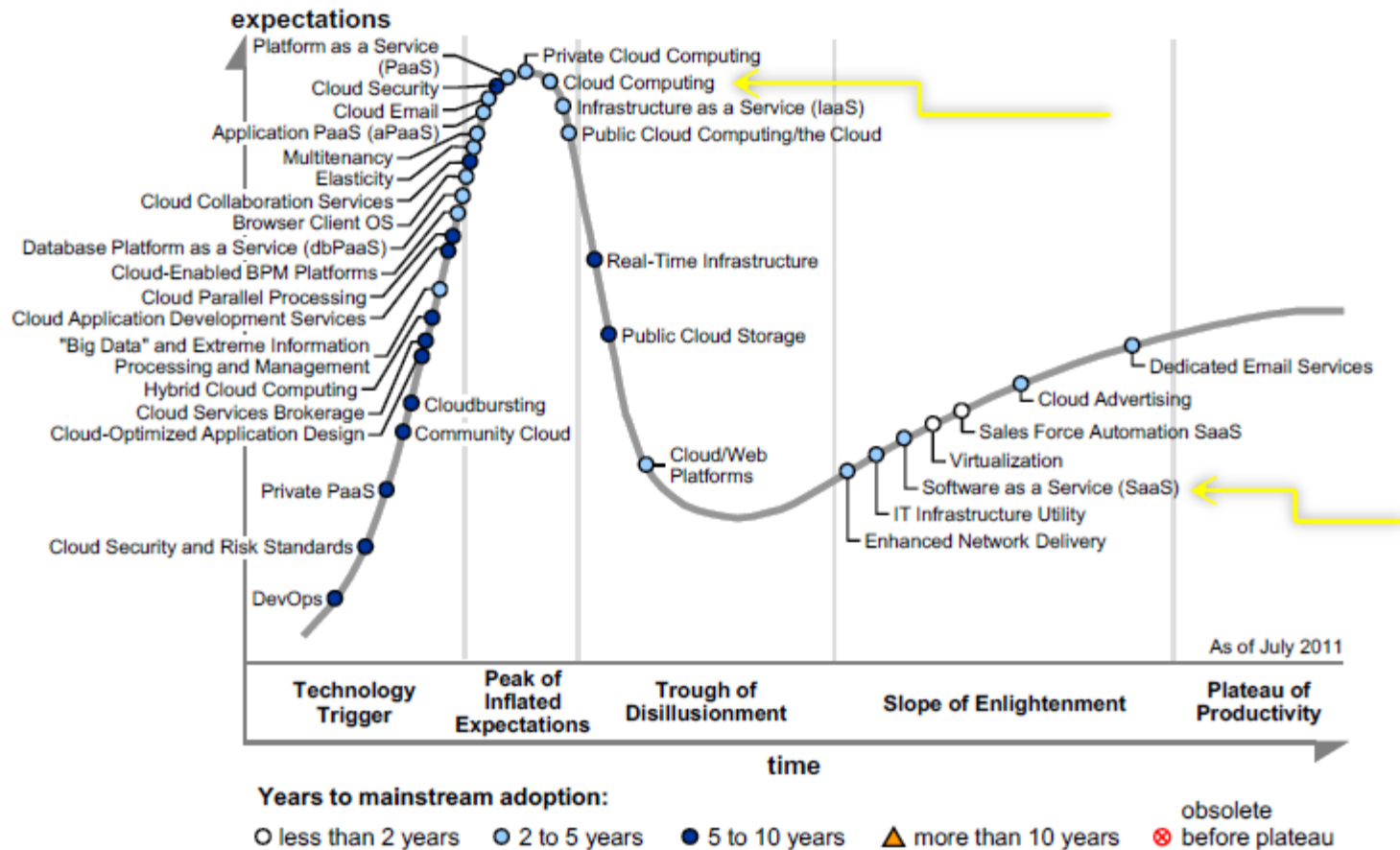


# Gartner Hype Cycle for Technology



# Cloud Computing Hype Cycle

Figure 1. Hype Cycle for Cloud Computing, 2011



Source: Gartner (July 2011)

# Cloud Standards, Security Compliance

- [SAS70](#)
- [ISO-9001](#), [ISO-27001](#)
- [PCI Data Security Standard](#)
- [FERPA](#)
- [Massachusetts Data Security Law](#) (201 CMR 17.00: M.G.L. c. 93H)
- Service Level Agreement



# ILS in the Cloud

Current examples:

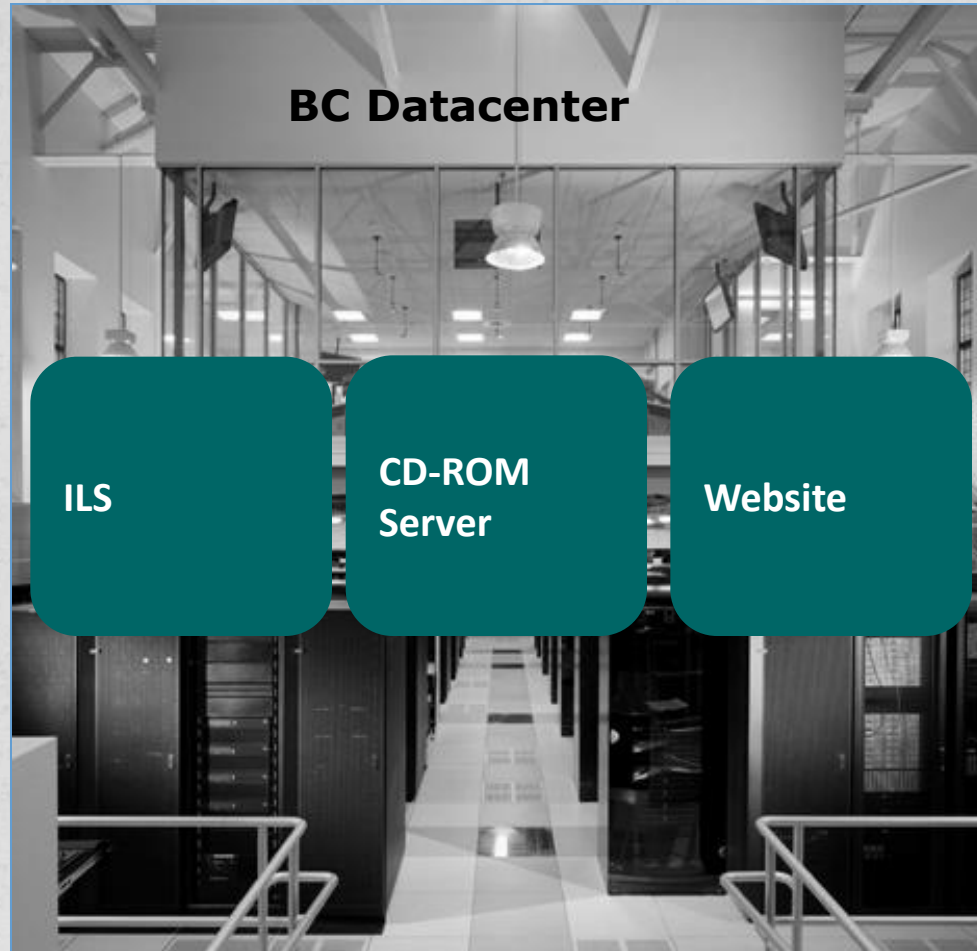
OCLC [WorldShare Management Services](#)

Ex Libris [Alma](#)

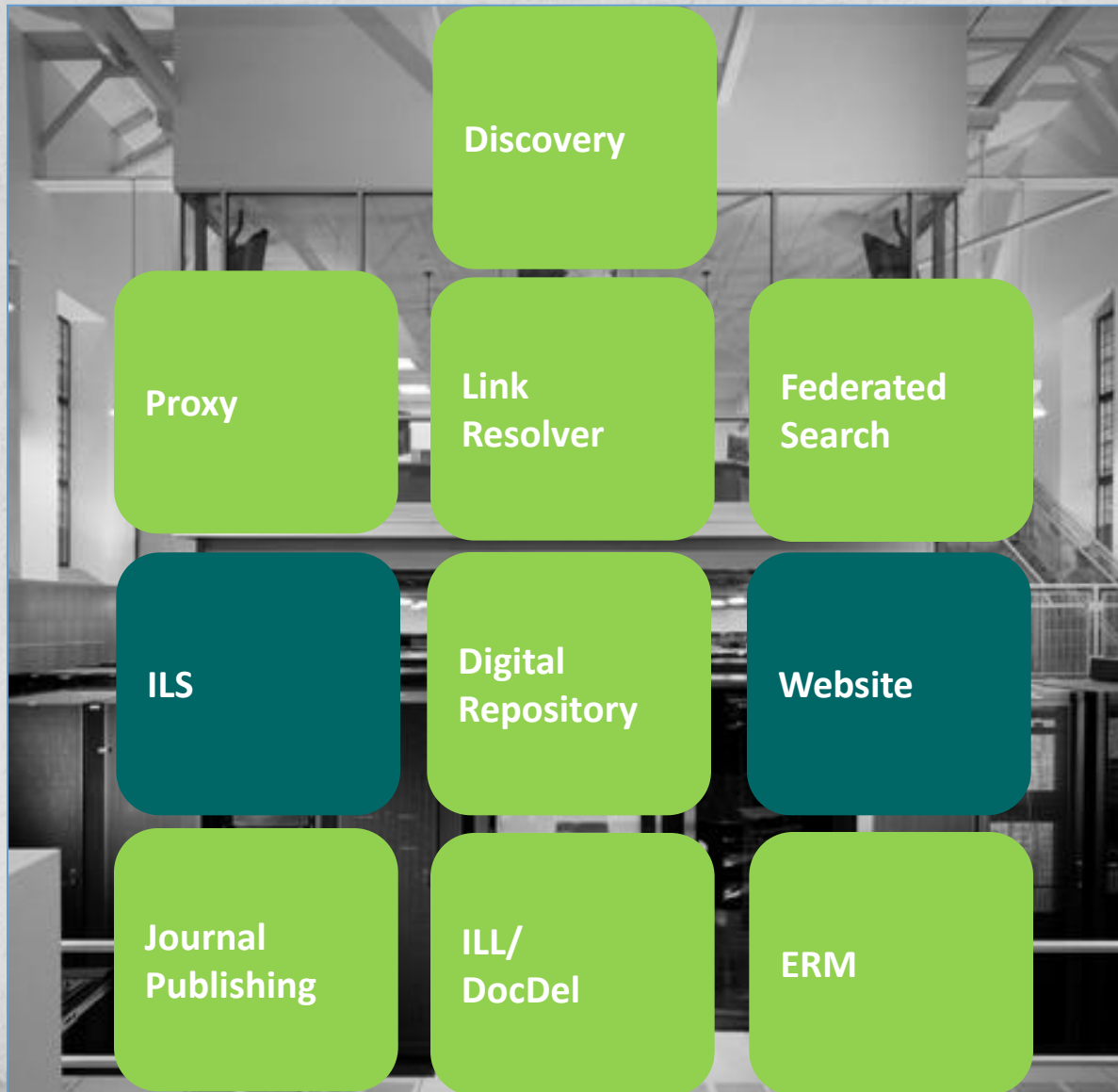
Innovative Interfaces [Sierra](#)

Serials Solutions [Intota](#)

# My world in 2000



# My world in 2010





# My world in 2012?



## System Management & Administration: Before and After Moving to the Cloud

### Server, network and DBA

- O/S management
- Oracle upgrades
- Back-ups
- Disaster recovery
- Test environments
- Security infrastructure

- Logging-debugging
- Firewall

### Application

- Service packs
- Version upgrades
- Client deployment
- Test application environment

- Command line

- Configuration and customization

### Support and service calls

- Under the hood diagnostics
- Implementing proposed fixes and testing solutions
- Capacity planning & tuning

- Liaison between local server/app teams and Ex Libris

- Logging & tracking service calls

Green = cloud managed

Purple = changed

Blue = unchanged

# Agile Release Cycle

## Frequent, small updates

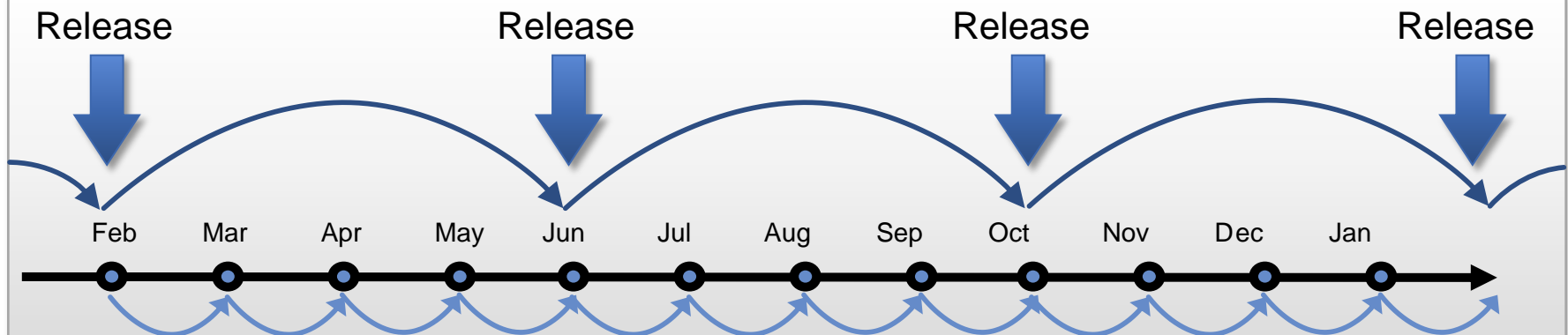
- Bug fixes, minor enhancements
- Automatic for every customer
- No impact on daily activity

## Periodical Releases

- 3 times a year (spring, summer, winter)
- New features
- User requests & needs addressed in weeks / months (not years)


## Easier Management

- No server or client upgrades
- No data migration
- Always on the latest release





# Promise: example of SaaS in action



**Alma Release Notes**

**ExLibris**  
The bridge to knowledge

**Greetings,**

We are delighted to inform you that starting January this year, Alma is live in the cloud running as a software-as-a-service. As part of the move to a live environment, we have started to release monthly software updates deployed onto Alma's production environment. The monthly releases are part of Alma's on-going enhancements that are delivered through its Agile development methodology. In the future, we will also release less frequent periodical releases focusing on major new enhancements.

**What's New in the Alma April 2012 Release?**

In this release we have added functionalities spanning many of Alma's workflows.

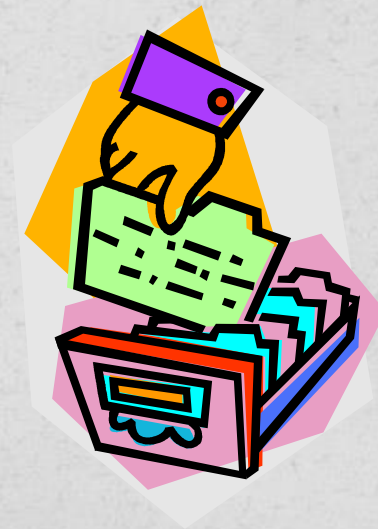
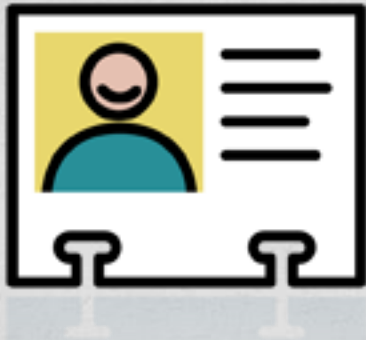
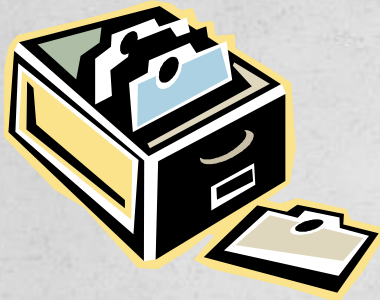
The new functionalities were driven by both requests and feedback from our Development Partners as well as the Alma Roadmap.

Some of April 2012 Release highlights are:

**Resource Management:**

- **Metadata Bulk Changes Enhancement:** This new functionality offers catalogers a very powerful tool for effecting global changes to bibliographic records. Users will be able to create their own rules (macros) for efficient and easy update of metadata records. In the initial phase, the rules infrastructure and online preview is enabled.

# What's a Catalog anyway?

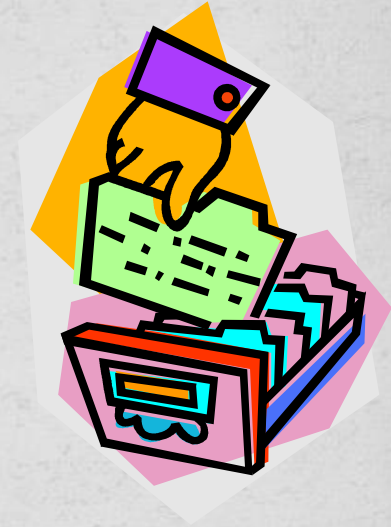


## Wikipedia definition for 'library catalog':

A **library catalog** (or **catalogue**) is a register of all bibliographic items found in a library or group of libraries, such as a network of libraries at several locations. A bibliographic item can be any information entity (e.g., books, computer files, graphics, realia, cartographic materials, etc.) considered library material (e.g., a single novel in an anthology), or a group of library materials (e.g., a trilogy), or linked from the catalog (e.g., a webpage) as far as it is **relevant** to the catalog and to the users of the library.



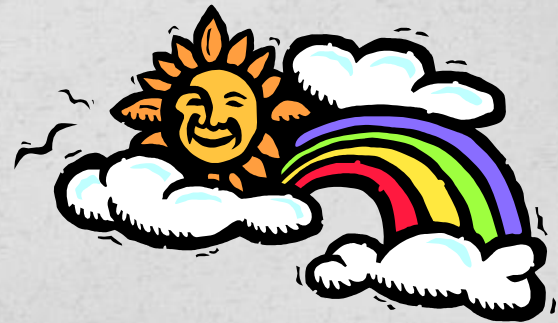
# A Brief History of Catalogs



# A Brief History of Catalogs, continued



• or



# What's in a catalog:

- Metadata
  - Words (author, title, subject, etc.)
- More metadata
  - More words (TOC's, reviews, etc.)
- Even more metadata
  - Cover images, full text, etc.



# Data in

- Who puts data in:
  - Catalogers
  - Systems people
  - Users (oh, my!)

# Data out

- Who gets data out:
  - Users
  - Librarians
  - Companion services
    - Resources for College Libraries, etc.
  - Discovery services

Just wondering:

Anyone remember RLIN?



# Where the data sits:

- Local server
  - Just my data
- Hosted server
  - Just my data
- 'In the cloud'
  - My data intermixed with others

# Cloudy Consortial Catalogs

- HELIN is...
  - 11 Academic Libraries
  - 13 Special Libraries
  - One (okay, 2... well, 3) catalogs
  - Server at Univ. of RI
    - And HELIN Central Office
  - For all others, access is through the Cloud

# ILS or LSP?

- ILS : Integrated Library System
  - OR
- LSP : Library Services Platform
  - Coined by Marshall Breeding

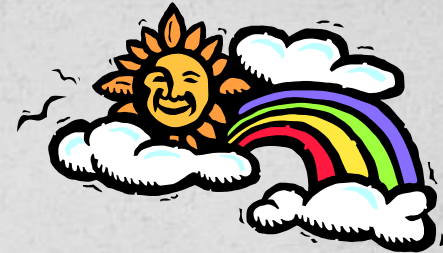


# Perils

- Loss of control
  - But do we really have it now?
- Trouble shooting from a distance
- More nodes between system & users
  - Harder to isolate issues
- More sources of data
  - Harder to isolate issues
  - Who owns the data?



# Promises



- More services possible
- May re-deploy staff
  - No need to manage locally hosted ILS
- Sharing the workload
  - Something catalogers have been doing all along
- Collaborative development
  - Change can happen across the cloud

# Discussion

- Is your library/consortium planning to move to a cloud-based ILS?
  - Why/why not?
- Is there any future for the non-cloud ILS model?
- What do you see as the key advantages/disadvantages?
- Your other questions and comments!



# Thank you!

- Robert Gerrity
  - [robert.gerrity@bc.edu](mailto:robert.gerrity@bc.edu)
- Martha Rice Sanders
  - [msanders@etal.uri.edu](mailto:msanders@etal.uri.edu)

# Community Zone Collaboration

## Data Services

### Global Authorities

Shared repository of standard  
authority files  
Managed by Ex Libris

### Community Catalog

Shared metadata repository  
Seeded by Ex Libris, stewarded by  
the community

### Central KnowledgeBase

Shared administrative information  
for e-resources  
Managed by Ex Libris

## Local Zone

### Local Catalog

Metadata repository stewarded  
locally  
Managed by your library

### Inventory

Holdings, items, activated  
electronic resources, and digital  
objects  
Can link to the local or  
Community Catalog