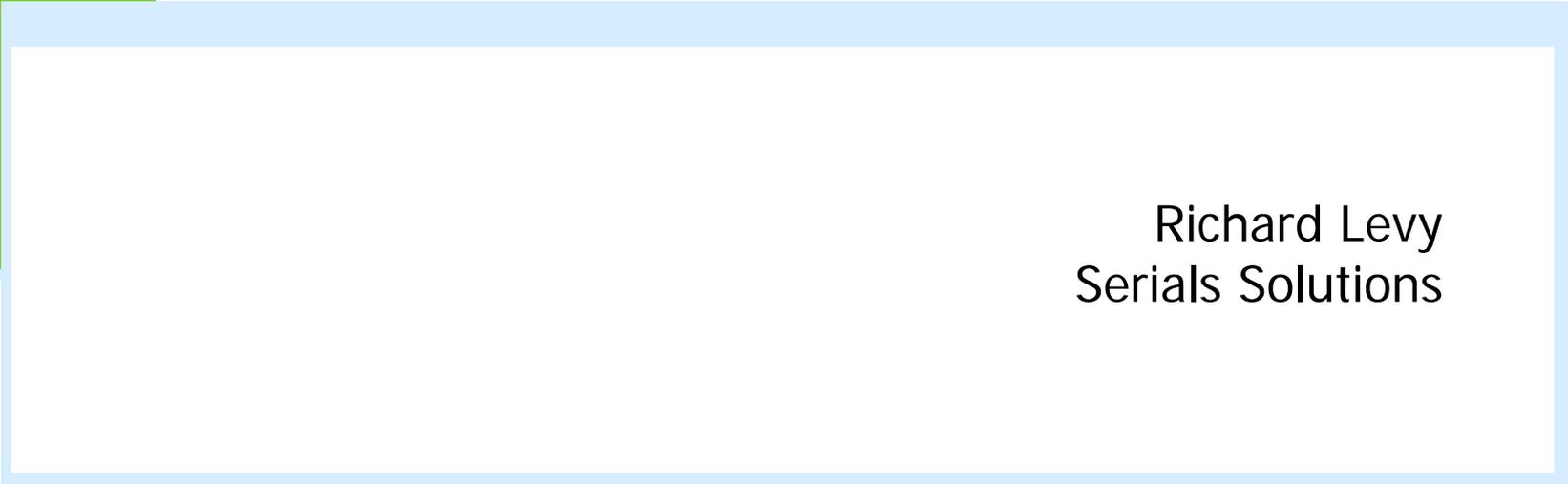




# Managing the Virtual Library



Richard Levy  
Serials Solutions

Remember the days before...



# The 21<sup>st</sup> Century Library

A library can hold millions of books...

A library can be a centre for the Internet...



# Concepts

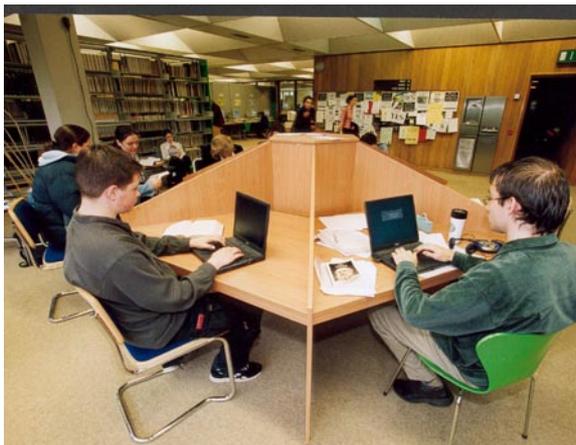
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- Web 2.0
- Library 2.0
- Federated Searching, Discovery Layer
- Electronic Resource Access and Management
- Software as a Service

# Old Model of Library Use...

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- Built BIG print collections
- Users had to come to the collections
- The days of closed, proprietary, and monolithic library software systems are drawing to a close



# Nature of collections has changed

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- 50+ % spent on e-resources is not unusual
  - Underutilised
- Collections are much more volatile
  - e-journals
  - Open Access journals
  - e-book collections
  - e-music
  - Institutional repositories
  - Online reference resources
  - Datasets

# Fact

- The Web has changed how we deliver and consume information
  - The shift from physical to digital delivery of information has created new requirements and opportunities for delivering effective library experiences
- The Web has profoundly transformed the nature of library collections
  - The majority of new acquisitions are Web-based
  - Collections have increased dramatically and content is available anytime, anywhere
  - Web search engines compete with libraries

# Fact

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- “Libraries have lost their place as primary information providers... the user interface is not competing successfully against services like Amazon or Google...”
- “Users have spoken with their keyboards... users take for granted...immediate access to full text and...clustering of search retrievals.”

*Karen Coyle and Diane Hillman. Resource Description and Access (RDA):  
Cataloging Rules for the 20th Century. D-Lib Magazine, 13(1/2).  
January/February 2007.*

# What are librarians *really* worried about?

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- Keeping up with multiple tasks and duties
  - Too much to do and not enough time, people or budget
- Making the transition to a user-friendly library
  - Bringing the library to the users
- The perception that libraries/librarians could lose their relevance as web-based search engines like Google become more powerful
  - Adopt web-based resources that expose the wealth of library collections to users

# The Elephant in the Room

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# Impact of Google

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- Google has created a universal precedent for both casual searching and scholarly research worldwide
- Libraries need to embrace this but also must ask:
  - What is NOT available in Google?
  - What resources are potentially better than Google?
  - How can the library remain relevant to its web-native users?

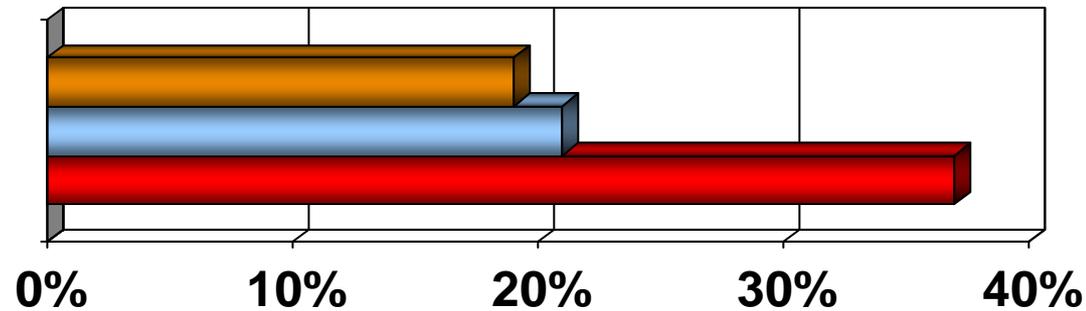
# OCLC Study: end user behaviour

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Where do you typically begin a search for a topic?

- 89% users go to Google
- 2% go to library web site
- 2% online databases
  
- *OCLC, Perception of Library Information Resources (2005)*

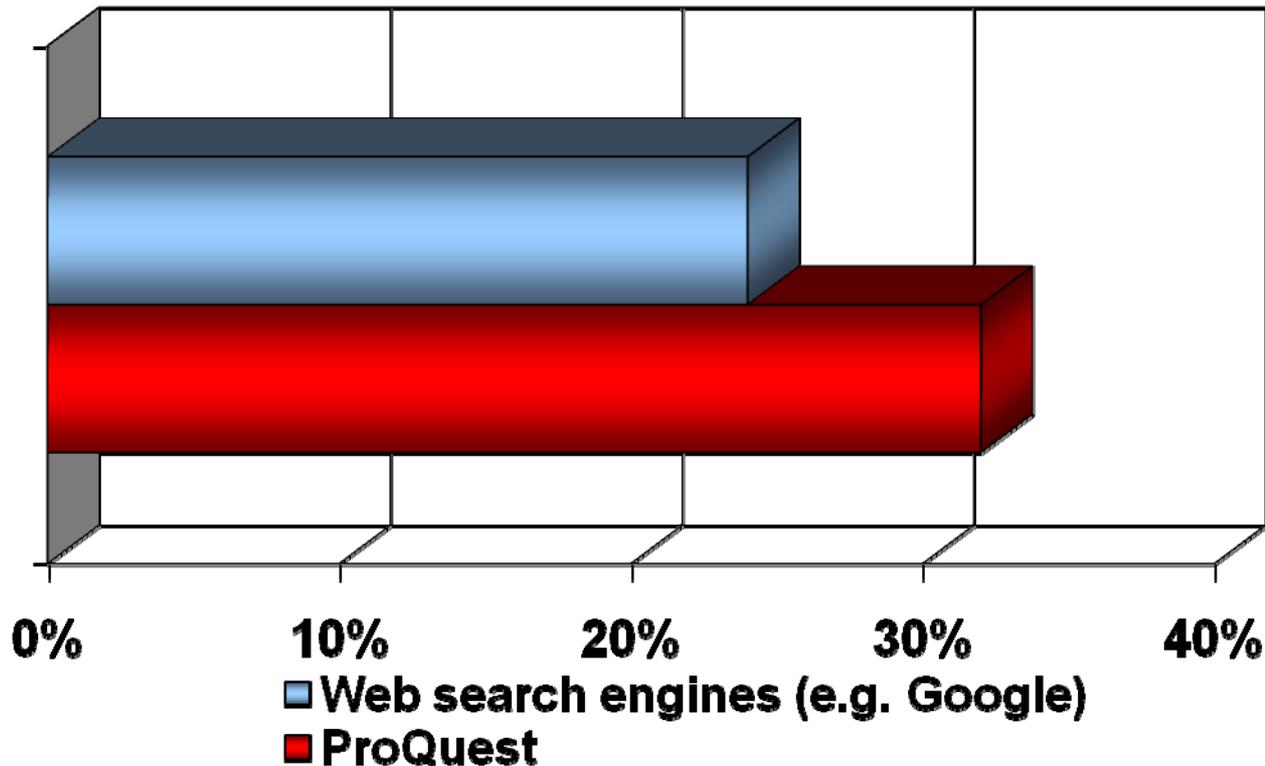
# ProQuest Survey of End Users



- I need a specific article**
- Find every pertinent article available**
- 2-3 articles relevant to my topic**

# ProQuest Survey of End Users

What has more current content?



# What users basically want...

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- Users want to find what they need quickly
  - In a simple way
  - Wherever they are
  - Outside normal library hours

# Today's Library exists within a new world

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- We need to be where the users are!
- We can't believe that they will tolerate learning multiple systems
- We must utilise systems and interfaces that meet 21<sup>st</sup> Century user expectations
- Google is a precedent
- Embrace Web 2.0 !

# What most users prefer...

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- Single search box
- Spell-checking
- Relevance ranking
- Clustering of results, by topic, journal, author, genre
- Ability to refine search results, e.g. facets
- “Did you mean?” “More like this?” help options
- Enhanced records, e.g. book covers, tables of contents, citation export, links to Google Books
- Visualisation, e.g. word clouds
- Link to full text whenever possible, e.g. Open URL
- No need to repeat the search in different systems
- Social networking: tagging, rating, reviews, bookmarking. e.g. LibraryThing

# Single interface, multiple sources

Wellington City Libraries

Marist

Library

Catalog

Archives

Research

Services

Forms

## James A. Cannavino Library

Art & Art History

Online Access 24/7

You Are Here: [Home](#) > [Databases](#) > [Art History](#)



advanced

Powered by Central Search

Search Core Databases and Google  
at the same time

### Core Databases (Searched by Fox Hunt)

- ◆ [Academic Search Elite](#)
- ◆ [America: History and Life](#)
- ◆ [American Memory](#)
- ◆ [Artcylopedia: The Fine Art Search Engine](#)
- ◆ [Chicago Tribune \(backfile\)](#)
- ◆ [Ebrary](#)
- ◆ [USA.gov](#)
- ◆ [Google](#)
- ◆ [Google Images](#)
- ◆ [Google Scholar](#)
- ◆ [Grove Art Online](#)
- ◆ [Historical Abstracts](#)
- ◆ [Jstor](#)
- ◆ [New York Public Library Digital Gallery](#)
- ◆ [New York Public Library Picture Collection Online](#)



### Find Books

### Find Videos

### Find Journals

### Find Word in Dictionary

### Find Subject Guide

[Ask A Librarian](#)

[Distance Learning/  
Extension Students](#)

[Ebrary](#)

[Hours](#)

[What is Fox Hunt?](#)

[Weather and Time](#)

[Site Map](#)

# Web 2.0

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- **Web 2.0** is an interactive, user-centered virtual community
- The library has had a web-presence for many years, and with Web 2.0, its users are joining it...

# What libraries need

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- Way to search that provides seamless integration and access to all content repositories both internal and external, including e-books, audio, video, etc.
- Integration of all solutions into one product...
- ...and interoperability between different resources, e.g. federated search and Open URL, ERM and ILS.

# A Single Interface

**BIG ORANGE SEARCH SYSTEM**

# BOSS

Ask Us! "Classic" Catalog Find Articles My Account Library Home

bats dolphins Search > Print > Help

Discover

Article database results: 20,961 > Hide Powered by 360

<a href="#">Business</a> (3,641)	<a href="#">Media and Communication</a> (0)
<a href="#">Computer Science</a> (22)	<a href="#">Music</a> (0)
<a href="#">Economics</a> (26)	<a href="#">News</a> (4,790)
<a href="#">Education</a> (7,211)	<a href="#">Other Databases</a> (8,489)
<a href="#">English and Literature</a> (13)	<a href="#">Performing Arts</a> (0)
<a href="#">Foreign Languages</a> (14)	<a href="#">Political Science</a> (0)
<a href="#">Health and Medicine</a> (34)	<a href="#">Psychology</a> (124)
<a href="#">History</a> (318)	<a href="#">Quick Search</a> (257)
<a href="#">Institutional Repositories</a> (0)	<a href="#">Science</a> (25)
<a href="#">Law</a> (657)	<a href="#">Sociology and Social Work</a> (0)
<a href="#">Library Catalogs</a> (14)	<a href="#">Visual Arts</a> (0)

Catalog results 1 - 10 of 38 for **bats dolphins**, sorted by:

Your results are grouped by found editions. > [Show all editions](#)

**Books**

- Echolocation in **bats** and **dolphins**** / edited by Jeanette A. Thomas, Cynthia F. Moss, and Marianne Vater.  
**Year:** c2004.  
**Subject:** Bats -- Physiology., Dolphins -- Physiology., Echolocation (Physiology)  
**Table of Contents:**  
Introduction: A Comparison of the Sonar Capabilities of **Bats** and **Dolphins** - Whitlow W. L. Au

**Select Location**  
Showing results from:

**Refine**

**Availability**  
> [Available](#) (35)  
> [Not available](#) (3)

**Publication Date**  
> [2004](#) (6)  
> [2000](#) (6)

**Legend:**  
■ Association  
■ Translation  
■ Discovery trail  
■ Spelling variation  
■ Thesaurus term

# Discovery

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- Users can't use it if they can't find it
- Federated search is NOT "in its infancy"
  - Google-type interface for premium content bought and owned by the library
- Connector technologies – XML gateways
- Results processing:
  - Relevancy
  - Visualisation
  - Results Clustering

# Federated Search: Clustering

Clustered Results

**All Journals (1174)**

- ProQuest Dissertations and Theses (20)
- University of Cincinnati Law Review (19)
- Science & Society (17)
- Kirkus Reviews (15)
- New York Times (1857-Current file); New York, N.Y. (14)
- Zentralblatt fur Bibliothekswesen (14)
- New York Times; Late Edition (East Coast); New York, N.Y. (13)
- The New York Times (12)
- Providence Journal; Providence, R.I. (11)
- NEW YORK TIMES (10)
- Pulsed Power Plasma Science, 2007. PPPS 2007. Conference Record - Abstracts. IEEE (10)
- The Washington Post; Washington, D.C. (10)
- Financial Times; London (UK) (9)
- Political Studies (9)
- Wall Street Journal; Eastern edition; New York, N.Y. (9)
- Review of Scientific Instruments (7)
- Studies in East European Thought (7)
- The Economist; London (7)
- 季報唯物論研究 (7)
- Agenzia Giornalistica Italia (5)
- American Record Guide (5)
- ARTnews (5)
- IEEE Transactions on Plasma Science (5)
- IEEE Transactions on Plasma Science; New York (5)
- Library Journal (5)
- The Times Higher Education Supplement (5)
- The Washington Post (1877-1954); Washington, D.C. (5)
- Bismarck Tribune; Bismarck, ND (4)
- Particle Accelerator Conference, 2007. PAC. IEEE (4)
- Providence Journal - Bulletin; Providence, R.I. (4)
- The Canadian Review of Sociology and Anthropology (4)
- Leyh, G E (2)
- ... (2)

Results 1-25 of 1174 returned for "title contains marx" (80999 total with 270 duplicates)

1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 >

**Select all records** :: 0 selected records: Email ▼ or Export/Save ▼

**1. Marx**  
Barnett Vincent.  
**Routledge**  
2009.09.  
Source: **Webcat Plus**  
[Show In Clusters](#)

**2. The Essential Marx Reader**  
Karl Marx; Bertell Ollman.  
**Modern Library**  
2009.07.  
Source: **Webcat Plus**  
[Show In Clusters](#)

**3. Critical Race Theory and Education : A Marxist Response**  
Michael Cole; Mike Cole.  
**Palgrave MacMillan**  
2009.03.  
Source: **Webcat Plus**  
[Show In Clusters](#)

**4. Caviar and Ashes : A Warsaw Generation's Life and Death in Marxism, 1918-1968**  
Marci Shore.  
**Yale University Press**  
2009.01.  
Source: **Webcat Plus**  
[Show In Clusters](#)

**5. Malthus, Darwin, Durkheim, Marx, Weber, and Ibn Khaldun : On Mechanisms of**

**5. Malthus, Darwin, Durkheim, Marx, Weber, and Ibn Khaldun : On Mechanisms of**

# What is the new Discovery layer?

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- New developments:
  - New tools from ILS vendors – Aquabrowser, Primo, Encore, VUFind, Open World Cat
  - Federated search integration
  - Open URL integration
  - MARC, A-Z List integration

# Visualisation, Faceting

My Account | My Queens Library  
Renew & Request Items | Web Membership

Books Music Movies Digital Media Websites Articles Events

Search:

[Advanced Search](#)

Results 1 - 10 of 738 for **beneditc**, sorted by:

[RSS](#) [FEEDS](#)

By Benedict J. Groeschel, C.S.B.

Book

**[From scandal to hope](#)**  
Benedict J. Groeschel

Call number: 282.73 G  
Year: 2002  
Found: beneditc (1) ; abuse (1) ; Groeschel (1)  
Subject: child sexual abuse by clergy

**Select Location**

Showing results from:

By John L. Allen

Book

**[The rise of Benedict XVI](#)**  
the inside story of how the Pope was elected and where he will take the Catholic Church  
John L. Allen

Call number: 282.0905 A  
Year: 2005  
Found: beneditc (2)

**Refine**

**Format**

- > Books (585)
- > Videos and DVDs (76)
- > Music CDs and Cassettes (40)
- > Books on Cassette or CD (14)
- > Music Scores (10)
- > 3 more...

**Author**

- > Benedict (43)
- > Groeschel, Benedict J (20)
- > Benedict, Elizabeth (10)

Book

**[Saint Benedict](#)**  
Leonard von Matt, Stephanus Hilpisch

Call number: BB463MT, B B463 MT  
Year: 1961  
Found: beneditc (2)

**External Sources** -

To search in external sources you must first log in to your library.

Username

Password

# What about an ERM?

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- It is the acquisitions module
- Needs an accurate Knowledge Base
  - Make it part of workflow
  - Minimise “data entry”
  - Demand data from your vendors
    - Subscription data via SPS
    - License terms data via ONIX PL
  - Utilise consortial effort: EZB, NESLI, CAUL

# ERM interface

e-Catalog:

[Home](#) > [Data Management](#) > [Database Details](#)

**ProQuest :: AGRICOLA PlusText**

- [-] Database Details
  - General
  - Titles (113 of 126)
  - [-] 360 Resource Manager
    - Administration
    - Contacts
    - [-] Cost
      - General
      - [-] 2008 (EUR 8000)
        - Details
        - Itemized (EUR 1200)
      - Licensing
      - Notes

**Code** PAU  
**Collection** ACT Health Nursing Collection  
**Provider** ProQuest  
**Titles** 113 of 126  
**Add All Titles** [Add All Titles](#)  
**Remove All Titles** [Remove All Titles](#)  
**Status** Trial

**Display In**

- 360 Core and 360 Link
- 360 Search
- 360 MARC Updates

**Default URL**   
[Default URL Link](#)

**Custom URL**

Use database-level (custom or default) URL only for all journals in this database

**Library Proxy**  Omit proxy from this database

**Title Coverage**  We subscribe to only some of the journals in this database

**Default Database Name** AGRICOLA PlusText

# Measurement

---

- What's being used and how often?
- The meaning and value of statistics
- Some way to measure return on investment
- Technology that compels publishers to standardise usage statistics and make them easy to archive and analyse
  - Project Counter
  - SUSHI

# Usage Stats

Home > Consolidated Usage Reports > Database Report (DB1 and DB2)

Last update:06/02/2008 07:23:23

HTML View [Java View](#) [Chart View](#) [Export Data](#) [Export PDF](#) [Log Off](#)

Metrics:  Sessions  Cost per Session  Searches  Cost per Search  Turnaways  Database Cost [Apply](#)

Filters: [Provider/Platform: Blackwell Publishing,EBSCOhost](#) [Month: Jan 2007 to Dec 2008](#) [Database Name: excluding](#)

Database Name	Publisher	Provider/Platform	Jan 2007		Feb 2007		Mar 2007		Apr 2007		May 2007		Sessions
			Sessions	Searches									
2007 MeSH		EBSCOhost	0	0	1	1	1	3	0	0	0	0	
Academic Search Complete		EBSCOhost	0	0	0	0	0	0	702	108	129	96	
Academic Search Premier	EBSCO Publishing	EBSCOhost	710	1,231	2,883	5,469	3,278	7,499	4,614	11,653	1,704	4,493	
Academic Search Premier Publications		EBSCOhost	0	0	2	3	2	1	3	4	1	0	
America: History & Life		EBSCOhost	0	0	0	0	0	0	0	0	0	0	
American Bibliography of Slavic and East European Studies	University of Illinois at Urbana-Champaign	EBSCOhost	2	17	8	44	7	27	13	57	11	57	
ATLA Religion Database	American Theological Library Association	EBSCOhost	14	54	39	106	84	280	162	473	47	209	
Bibliography of Native North America	Human Relations Area Files, Inc.	EBSCOhost	3	22	16	41	28	91	25	77	6	44	

# Use Hosted Systems

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- Installed software is increasingly being replaced by cheaper, web-based hosted models
- Enhancements in hosted systems are inherited to all clients
- No need to install monthly updates
- Preserve time and money for unique resources
  - Institutional repositories
  - ILS upgrades
- Definitely Web 2.0

# Software as a Service

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- The 21st century will see software become on-demand, with the complexity of today's computing environments replaced by a plug in the wall as businesses access applications and data online.
- To use an analogy, organisations don't need to build the power generator to use electricity.

# Key Technology Requirements

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## ■ Integration

- Requires data, access, and management tools to work together seamlessly

## ■ Interoperability

- Requires active participation within the library community and standards bodies, and partnerships with libraries of all sizes

## ■ Web-native technology

- Requires technology that has been designed for the Web from the ground up

# Establish an eResource access and management precedent that...

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- Clearly highlights the issues of e-collections.
- Provides foundation for organisational and budget decisions.
- Justifies spending for needed tools and services
- Supports integration of processes
- Provides framework for defining enhancements from vendors

# Paradigm Shift

- This is a time of “revolution” – not evolution
- Electronic resources are central to all aspects of library collections, including print
- The physical library is now effectively an extension of a virtual environment created for and sustained by a new generation of web-oriented users

