

# The Value of Digital Content In the Academic Library

IUPUI University Library and SLIS Joint Research  
Conference 2012

Terry Plum  
Simmons GSLIS  
March 22, 2012



# Value

- Private goods and services
  - University students pay tuition
  - University faculty get grants
  - Value proposition – value to an individual or institution determines whether payment is made for the service
- Public goods and services
  - Academic libraries provide services and resources to all patrons
  - Value proposition - Collective value to all users must be estimated.
- What is value of electronic resources to the individual?
- What is the value of electronic resources to the institution?  
(Kingma 2012)



# Value v. Use

- Cost / Use
  - COUNTER Data
  - Subscription costs (including consortial)

## Journal Report 1: Number of Successful Full-Text Article Requests by Month and Journal

(Full journal name, print ISSN and online ISSN are listed.)

	Publisher	Platform	Print ISSN	Online ISSN	Jan-2009	Feb-2009	Mar-2009	Total 11Q	Total 11Q w/PAL	Total POP
1	Journal Report 1 (R2): Number of Successful Full-Text Article Requests by Month and Journal									
2	=Criteria1									
3	Date Full									
4	=getdata									
5	Total No of Journals									
6	Journal #1	Publisher 1	Platform 1	000000	000000	55	57	155	267	377
7	Journal #2	Publisher 1	Platform 1	000000	000000	55	57	155	267	377
8	Journal #3	Publisher 1	Platform 1	000000	000000	55	57	155	267	377
9	Journal #4	Publisher 1	Platform 1	000000	000000	55	57	155	267	377

- Cost / Use is not value

# How to Evaluate Value

- Purchase or exchange value (surveys)
  - Time saved
  - Willingness to pay
    - What if there were no online access?
    - What if there were no shared access to journals?
- Use value: favorable consequences (surveys)
  - Successful scholars read a lot
  - Relating citations to grants (causation issues?)
- Supporting success (surveys)
  - Successful scholars use library resources more  
(Tenopir 2012)



# Value landscape

- ARL statistics
- COUNTER (Shepherd)
- Data Farm (Zucca)
- Web site – Transactional Log Analysis
  - MESUR – METrics from Scholarly Usage of Resources
  - Deep Log Analysis – relating server logs to users
- ROI – Return on Investment
  - Students do better
  - 1:4
  - LIBValue (Tenopir, Kingma, & Kaufman)
- MINES (ARL)



# MINES for Libraries®

**What is MINES for Libraries®?**  
Measuring the Impact of Networked Electronic Services (MINES for Libraries®) is an online innovation-based survey that collects data on the purpose of use of electronic resources and the demographics of users. As libraries implement access to electronic resources through portals, collaborations, and consortium arrangements, the MINES for Libraries® protocol offers a convenient way to collect information from users. — 2009

**Why Participate?**  
Mines for Libraries® survey data not available through vendor-provided statistics, and can help libraries understand their networked electronic resources usage. — 2009

**Origins of MINES for Libraries®**  
MINES for Libraries® was developed by Ginny Francis and Tom Platt as an online innovation-based survey to determine a library user's access usage. — 2009

**How is the MINES for Libraries® survey conducted?**  
MINES is a Web-based innovation survey that is presented to the user as the first digital resource is accessed for viewing. — 2009

**MINES for Libraries® aims to:**

- Measure the value and impact of digital content
- Determine how specific user populations apply digital content to their work, based on demographics and purpose of use analyses
- Identify where library use integrates in the networked environment and user service accounts. — 2009

**NEWS**

- 2008042 [LJQUAL-® Webcast Resources Now Available](#)
- 2010042 [Call for Proposals: Library Assessment Conference 2010](#)
- 2008011 [Resources for LJQUAL-® Membership Subscribers](#)

• MORE NEWS

**EVENTS**

- 4/10/2010 [IFIL, Statistics & Assessment Webcast Series -](#)
- 10/08/12 [IFIL, LJQUAL-®/StatsQUAL-® South #100 at ALA Midwest in Dallas - Dallas, Texas](#)
- 4/19/09 [Dulcote Research: Tools for the Library of the Future, Resource Service Quality \(LJQUAL-®/STM\) and the Impact of Networked Electronic Services \(IFILE\)](#)

• MORE EVENTS

**PUBLICATIONS**

- [Measuring Uses of Licensed Electronic Resources: A Second Iteration of the MINES for Libraries® Survey on Scholar Portal and Other Resources for the Ontario Council of University Libraries](#)
- [MINES for Libraries®: Measuring the Impact of Networked Electronic Services and the Ontario Council of University Libraries' Scholar Portal, Final Report, 2011](#)
- [The APIL StateQUAL-® Gateway to Assessment Tools with a Focus on LJQUAL-®, MINES for Libraries®, and ComateQUAL-® Research and Practice](#)



# What is MINES for Libraries®

- Action research
  - Historically rooted in indirect cost studies
  - Set of recommendations for research design
  - Set of recommendations for web survey presentation
  - Set of recommendations for information architecture in libraries
  - Plan for continual assessment of networked electronic resources
  - An opportunity to benchmark across libraries



# Library User Survey



## UConn Library Electronic Services Web Survey

This survey is being conducted during a **two-hour** time period by the University of Connecticut to assess the usage of the Library's electronic services. **All responses are anonymous.** The data is critical for obtaining continued funding.

After completing the survey, you will be connected to the service you selected.

Thank you for your help.

<b>Patron Status</b>	Select Patron Status
<b>Affiliation</b>	Select Affiliation
<b>Location</b>	Select Location
<b>Purpose for Using this Electronic Resource:</b>	<input type="radio"/> Sponsored (Funded) Research <a href="#">Definition</a>
	<input type="radio"/> Instruction/Education/Departmental (Non-Funded) Research <a href="#">Definition</a>
	<input type="radio"/> Other Activities <a href="#">Definition</a>
	<input type="button" value="Submit Survey"/>



# Library User Survey Patron Status



## UConn Library Electronic Services Web Survey

This survey is being conducted during a **two-hour** time period by the University of Connecticut to assess the usage of the Library's electronic services. **All responses are anonymous.** The data is critical for obtaining continued funding.

After completing the survey, you will be connected to the service you selected.

Thank you for your help.

<b>Patron Status</b>	<input checked="" type="checkbox"/> Select Patron Status
<b>Affiliation</b>	<input type="checkbox"/> UConn Undergraduate Student
	<input type="checkbox"/> UConn Faculty
<b>Location</b>	<input type="checkbox"/> UConn Graduate Student
	<input type="checkbox"/> UConn Staff
<b>Purpose for Using this Electronic Resource:</b>	<input type="checkbox"/> UConn Post-Doc Fellow, Research Associate, Lecturer, or Visiting Professor
	<input type="checkbox"/> Non-UConn
	<input type="radio"/> Other Activities <a href="#">Definition</a>
	<input type="button" value="Submit Survey"/>



# Library User Survey Affiliation



## UConn Library Electronic Services Web Survey

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After completing the survey, you will be connected to the service you selected.

Thank you for your help.

A screenshot of a web survey form. On the left, there are labels for "Patron Status", "Affiliation", "Location", and "Purpose for Using this Electronic Resource:". The "Patron Status" dropdown menu is open, showing a list of options: "Select Patron Status", "Select Affiliation", "Agriculture & Natural Resources", "Allied Health", "Business Administration", "Continuing Studies/B.G.S.", "Education", "Engineering", "Family Studies", "Fine Arts", "Liberal Arts & Sciences", "Nursing", "Pharmacy", "Social Work", "Other UConn", and "Non-UConn". The "Select Affiliation" option is selected with a checkmark. To the right of the dropdown, there is a "Definition" link and a partially visible "Definition" link.

# Library User Survey Location



## UConn Library Electronic Services Web Survey

This survey is being conducted during a **two-hour** time period by the University of Connecticut to assess the usage of the Library's electronic services. **All responses are anonymous.** The data is critical for obtaining continued funding.

After completing the survey, you will be connected to the service you selected.

Thank you for your help.

A screenshot of a web survey form. The form has four main sections: "Patron Status" with a dropdown menu showing "Select Patron Status"; "Affiliation" with a dropdown menu showing "Select Affiliation"; "Location" with a dropdown menu showing "Select Location" (checked), "In the Library", "On Campus - Storrs", "On Campus - Regional Campus", and "Off Campus"; and "Purpose for Using this Electronic Resource:" with a dropdown menu showing "Definition", "Definition", and "mental (Non-Funded) Research Definition". A "Submit Survey" button is located at the bottom of the form.

# Library User Survey Purpose



## UConn Library Electronic Services Web Survey

This survey is being conducted during a **two-hour** time period by the University of Connecticut to assess the usage of the Library's electronic services. **All responses are anonymous.** The data is critical for obtaining continued funding.

After completing the survey, you will be connected to the service you selected.

Thank you for your help.

**Patron Status**

**Affiliation**

**Location**

**Purpose for Using this Electronic Resource:**

Sponsored (Funded) Research [Definition](#)

Instruction/Education/Departmental (Non-Funded) Research [Def](#)

Other Activities [Definition](#)

### Definition

#### Sponsored (Funded) Research Projects

This includes:

- Research funded by grants or contracts from federal, state, or local governments
- Research funded for grants, contracts or gifts from a foundation or other outside party
- University funded research (Research Foundation Awards)
- Research training

**Note:** This category includes only specially funded research projects, which are separately budgeted and accounted for as organized research projects by the institution.



# MINES for Libraries® Survey on Scholars Portal and Other Resources for the Ontario Council of University Libraries

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# MINES for Libraries® Survey on Scholars Portal and Other Resources for the Ontario Council of University Libraries

- Publications and Presentations (This presentation is taken primarily taken from these three publications)
  - Kyrillidou, M., Thomas, D., Davidson, C., and Plum, T. 2011. *Measuring the Impact of Networked Electronic Resources and the Ontario Council of University Libraries' Scholar Portal. Final Report.* Washington, DC: Association of Research Libraries  
[http://www.libqual.org/documents/LibQual/publications/MINES\\_OCUL2011.pdf](http://www.libqual.org/documents/LibQual/publications/MINES_OCUL2011.pdf)
  - Thomas, D., Davidson, C., Kyrillidou, M., and Plum T. “Measuring Use of Licensed Electronic Resources: Results of the Second Iteration of the MINES for Libraries Survey on Scholars Portal and Other Resources for the Ontario Council of University Libraries (OCUL). *9th Northumbria International Conference on Performance Measurement in Libraries and Information Services.* University of York, York, England. August 23-25, 2011.  
[http://minesforlibraries.org/documents/LibQual/publications/Northumbria2011\\_MINES.pdf](http://minesforlibraries.org/documents/LibQual/publications/Northumbria2011_MINES.pdf)
  - Thomas, D., Darnell, A., Kyrillidou, M., and Plum T. “Understanding Use of Networked Information Content: MINES for Libraries® Implementations at Scholars Portal.” *Project Briefings / Presentations* CNI Fall 2011 Membership Meeting. Arlington, VA. December 12-13, 2011.  
<http://www.cni.org/topics/assessment/understanding-use-of-networked-information-content/>



# Ontario Council of University Libraries

**OCUL** Ontario Council of University Libraries

Home News About Services Committees Links Contact Members

## Collaborate Innovate Deliver

**Scholars Portal**  
Scholars Portal provides the technological infrastructure that preserves and provides access to information resources collected and shared by [Ontario's 22 universities](#).

**Data**  
OCUL works with other provincial partners to encourage the advancement of access to electronic data resources including those provided under the Data Liberation Initiative (DLI).

**Maps & Geospatial**  
OCUL is committed to expanding access to maps, geospatial data, and other cartographically related resources, both print and digital.

**Information Resources**  
OCUL provides access to a diversity of learning and research materials, and ensures their preservation through sustainable and responsible stewardship.

**Digital Infrastructure**  
OCUL strives to provide innovative and dynamic access to our shared information resources, and to be a leader in the development of partnerships to expand Canada's digital research infrastructure.

### News

**OCUL Welcomes Scholars Portal 2012**  
[A version of this page will be available on March 1, 2012 - OCUL is pleased to announce the release of Scholars Portal.]  
[http://www.scholarsportal.ca/](#)

**OCUL Wins the 2012 DLIT Award for Technical Innovation**  
OCUL's geospatial data platform [ScholarX GeoPortal](#) was awarded this year's Ontario Library and Information Technology Association (OLITA) Award for Technical Innovation.

**GeoOne Files Available on Scholars Portal**  
OCUL has partnered with GeoOne to locally host GeoOne Complete into Scholars Portal Journals. [Read Full Release](#)

**RACER Linkage Now Available**  
The Rapid Access to Collections by Electronic Requesting shows library card holders from all 21 Ontario university libraries to search across multiple catalogues and place an inter-library loan (ILL) request.

[More](#)

# Ontario Council of University Libraries

Funded & Supported By:

**OCUL**  
Ontario Council of



**420,000 FTE**

Thomas 2011

# Scholars Portal

[Home](#) | [News](#) | [About Us](#) | [Support](#) | [Publications](#) | [Employment](#) | [Contact Us](#) | [SPOT Back View](#)

Scholars Portal is a project of the Ontario Council of University Libraries. Founded in 2010, Scholars Portal provides a shared technology infrastructure and shared collections for all university libraries in the province.

YOUR Portal  
TO RESEARCH  
AND LEARNING



## News

### JSTOR collections now available in Journals

Approximately 2000 titles from the JSTOR archive collections have been linked on Scholars Portal Journals (<http://journals.scholarsportal.info>). The collections linked include the Arts & Sciences Collection, DYS, the Inland Collection, and the Life Sciences Collection. Users can search ...

### OCUL Releases Scholars Geo Portal

March 1, 2012 OCUL is pleased to announce the release of Scholars GeoPortal (<http://geo.scholarsportal.info>). Scholars GeoPortal is an award-winning geospatial data discovery tool allowing Ontario's university students and researchers to enrich their learning and research by engaging with OCUL's growing ...

### Scholars GeoPortal Recognized by the DLA

Scholars GeoPortal has been awarded the CLITA Award for Technical Innovation! Praise the DLA awards announcement here:

[http://www.digitallibrary.org/ocul/LAW/04Home/News/04/01/01January/04\\_AwardsAwardWinners.aspx](http://www.digitallibrary.org/ocul/LAW/04Home/News/04/01/01January/04_AwardsAwardWinners.aspx)

[http://www.digitallibrary.org/ocul/LAW/04Home/News/04/01/01January/04\\_AwardsAwardWinners.aspx](http://www.digitallibrary.org/ocul/LAW/04Home/News/04/01/01January/04_AwardsAwardWinners.aspx)

And, recognized ...

## Services

- Interlibrary loan **RAGER**
- Research management **RefWorks**
- Research management **WuFolio**
- Digital content **Journals**
- Digital content **Books**
- Link server **SFX**
- Database and metadata **ODESI**
- Chat reference **Ask A Librarian**



# Goals for MINES for Libraries at OCUL 2010-11

- Demonstrate the value of the library
- Secure resources as needed
- Understand use of resources within the library, on campus outside the library, and off campus
- Understand use of resources across disciplines and user groups
- Understand why people are using electronic resources
- Track the trajectory of the use of the resources since 2004-05



# OCUL MINES 2004 vs 2010

- **OCUL I : 2004**

- Randomly selected 2 hour periods each month for a year
- Mandatory
- Scholars Portal

- **OCUL II: 2010**

- SFX as delivery mechanism
- Systematic sampling (every *n*th)
- Mandatory and optional versions
- Additional question: recommender



# Content Types Being Measured

2004/05	2010/11
<p><b>ejournals ONLY</b> locally loaded on Scholars Portal</p> <ul style="list-style-type: none"><li>Academic Press</li><li>American Psychological Association</li><li>American Chemical Society</li><li>Berkeley Electronic Press</li><li>Blackwell Publishing</li><li>Cambridge University Press</li><li>Emerald Publishing</li><li>Elsevier Science (Elsevier Science, Harcourt Health Sciences)</li><li>IEEE Publication</li><li>Kluwer</li><li>Oxford University Press</li><li>Project MUSE</li><li>Sage Publications</li><li>Springer-Verlag</li><li>Taylor and Francis</li><li>John Wiley &amp; Sons</li></ul>	<p><b>ejournals PLUS</b></p> <ul style="list-style-type: none"><li>abstracts and indexes</li><li>e-books</li><li>dissertations</li><li>library catalogues</li><li>reference materials</li><li>institutional repositories</li><li>other services (e.g. interlibrary loan, Ulrichs, JCR – Journal Citation Reports, Refworks)</li></ul>

# MINES: Optional and Mandatory

Partner Institutions	FTE , July 2010	OCUL 1 - 2004/05	OCUL 2 - 2010/11
Algoma	870	Not part of OCUL	Optional
Brock	14,557	Mandatory	Optional
Carleton	20,743	Mandatory	Optional & Mandatory
Guelph	21,452	Mandatory	Optional
Lakehead	7,583	Mandatory	Optional
Laurentian	7,630	Mandatory	Optional
McMaster	24,944	Mandatory	Optional
Nipissing	5,535	Mandatory	Optional & Mandatory
OCAO	3,010	Mandatory	Optional
UOIT	5,147	Mandatory	Optional & Mandatory
Ottawa	32,230	Mandatory	Optional
Queen's	20,751	Mandatory	Optional
Royal Military College	1,792	n/a	n/a
Ryerson	26,841	Mandatory	Optional & Mandatory
Toronto	68,334	Mandatory	Optional
Trent	7,030	Mandatory	Optional
Waterloo	27,074	n/a	Optional
Western Ontario	33,119	Mandatory	Optional & Mandatory
Wilfrid Laurier	14,054	Mandatory	Optional
Windsor	14,419	Mandatory	Optional
York	45,235	Mandatory	Optional
<b>Total</b>	<b>402,950</b>		

Thomas 2011

# Limitation: Variations in SFX as delivery mechanism

Institution	Uses az list?	SFX from OPAC?	Google Scholar?	Citation linker?	bx?	PRIMO?/ Discovery layer?
<b>ALGOMA</b>						
BROCK	YES	NO	YES	YES		
CARLETON	NO	NO	YES	YES	YES	
<b>DURHAM</b>						
GUELPH	YES	NO	YES	YES	YES	YES
LAKEHEAD	YES	YES	YES	YES	YES	NO
LAURENTIAN	YES	YES	YES	YES	NO	NO
LAURIER	YES	NO	YES	YES	YES	YES
MCMASTER	YES	YES	YES	YES	YES	NO
NIPISSING	YES	NO	YES	YES	YES	NO
OCAD	YES	NO	NO	YES	NO	NO
OTTAWA	YES	NO	YES	YES	NO	NO
QUEENS	NO	NO	YES	YES	NO	YES
<b>RMC</b>						
RYERSON	YES	YES	YES	YES	NO	NO
TORONTO	YES	NO	YES	YES	YES	NO
TRENT	YES	NO	YES	YES	NO	NO
UOIT	NO	NO	YES	YES	NO	NO
WATERLOO	YES	YES	YES	YES	YES	YES
WESTERN	YES	YES	YES	YES	YES	NO
WINDSOR	YES	YES	YES	YES	YES	NO
YORK	NO	NO	YES	YES	NO	NO

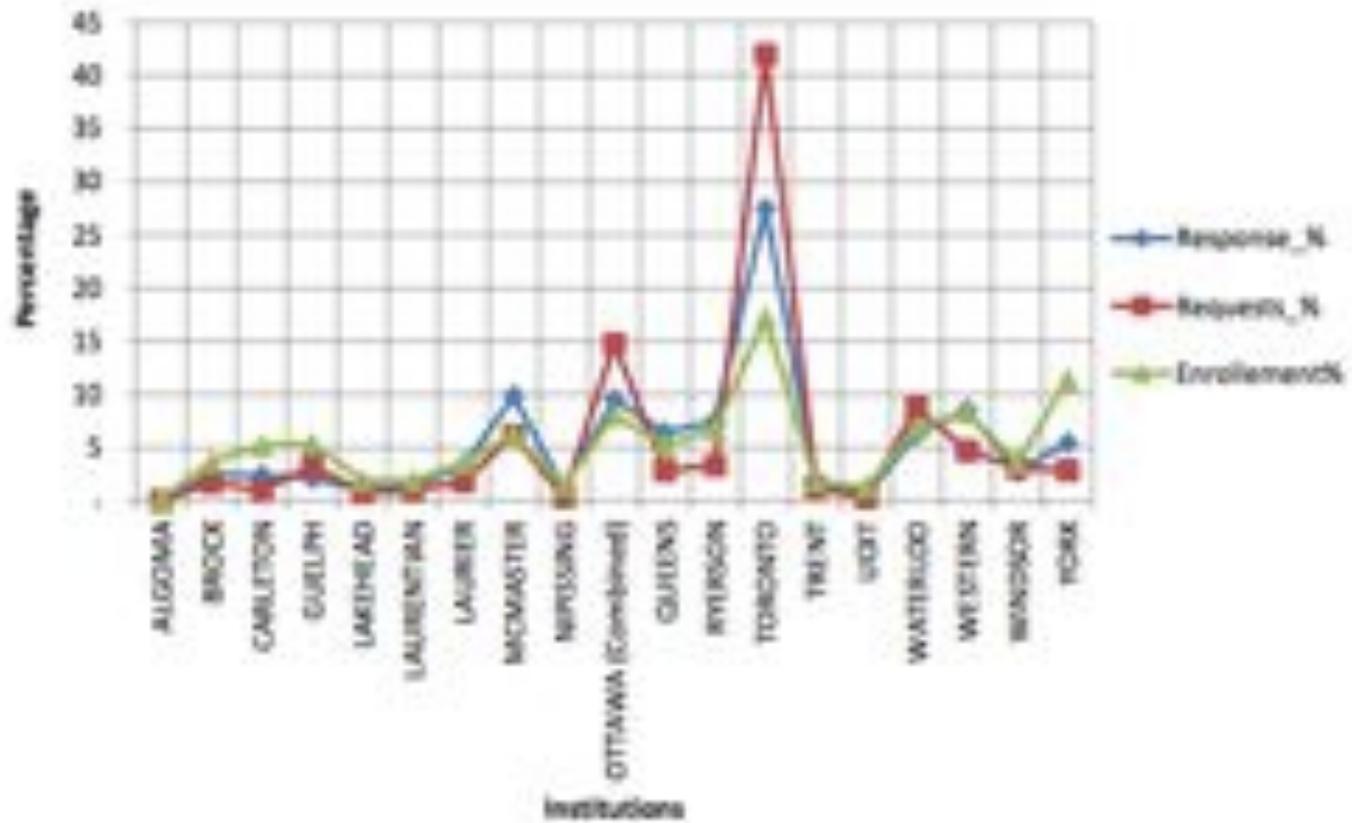
Thomas 2011

# Introduction to OCUL Report and Institutional Reports

- 34,776 complete responses across all OCUL institutions
- 4,255 surveys from mandatory and 30,521 from optional implementations
- Summarized as:
  - PDF reports
  - Excel files
  - SPSS dataset(s)
  - SPSS syntax file(s)

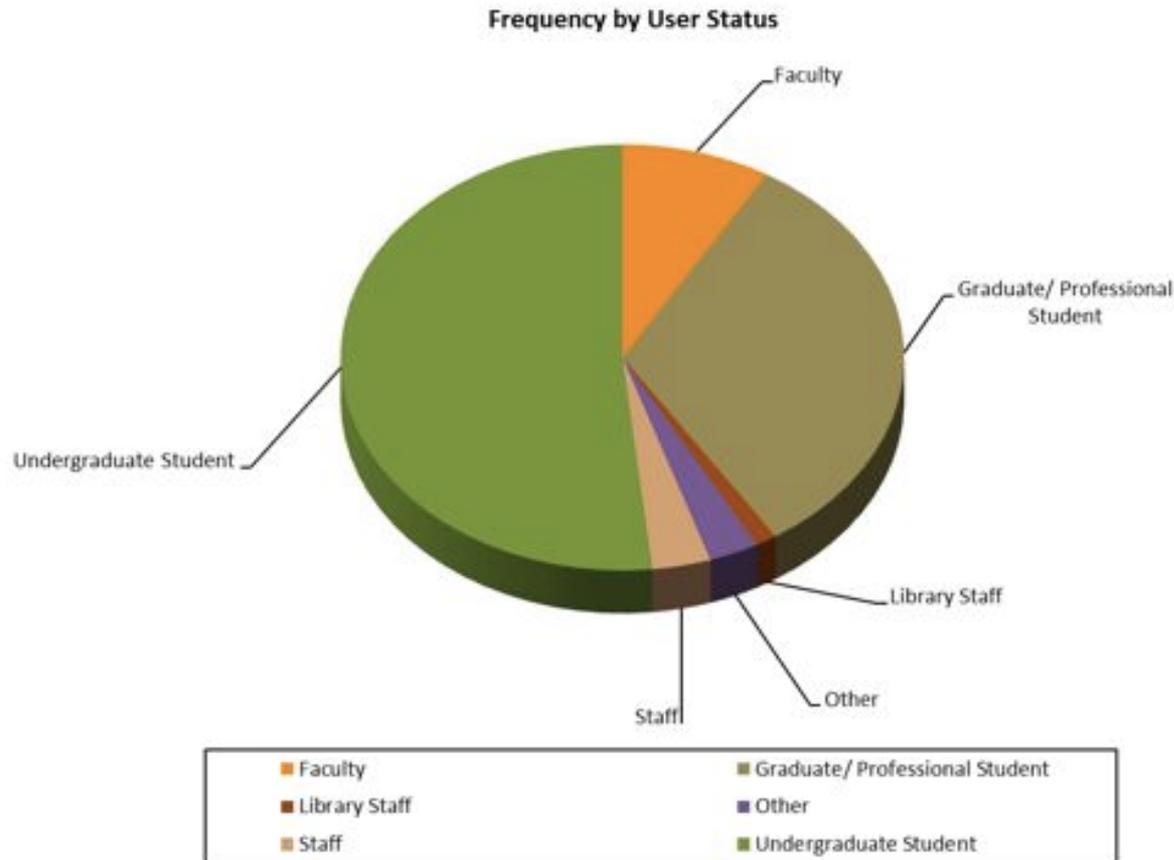


# Distribution of OCUL Partner Institutions' Enrollments as of July 2010, Responses to MINES for Libraries(R), and SFX Statistics (Clicks) from 2/16/2010 to 2/17/2011



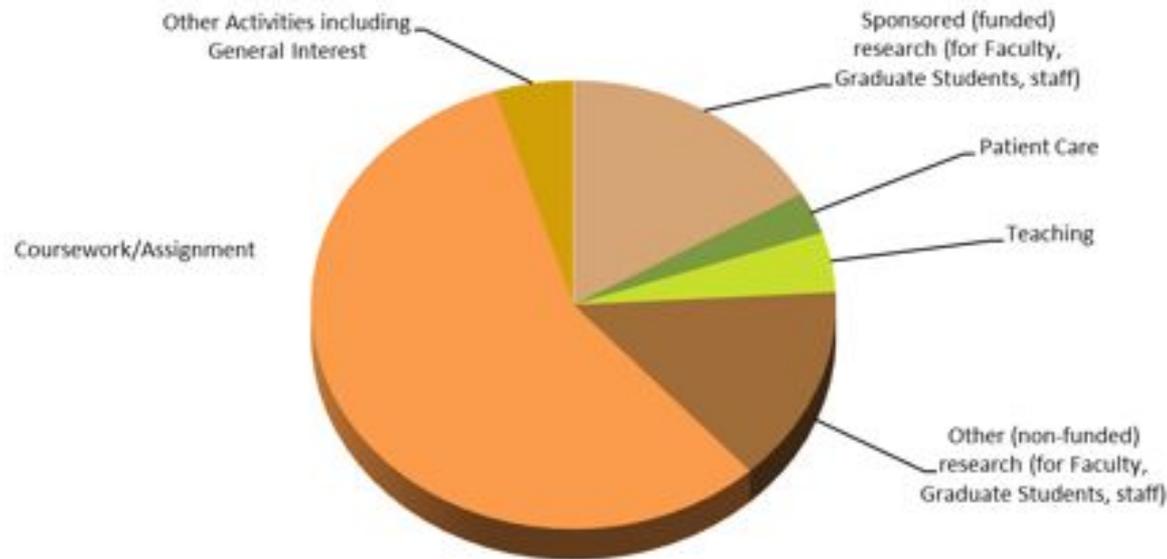
Thomas 2011

# Findings: Frequency of Use of Electronic Resources by User Status



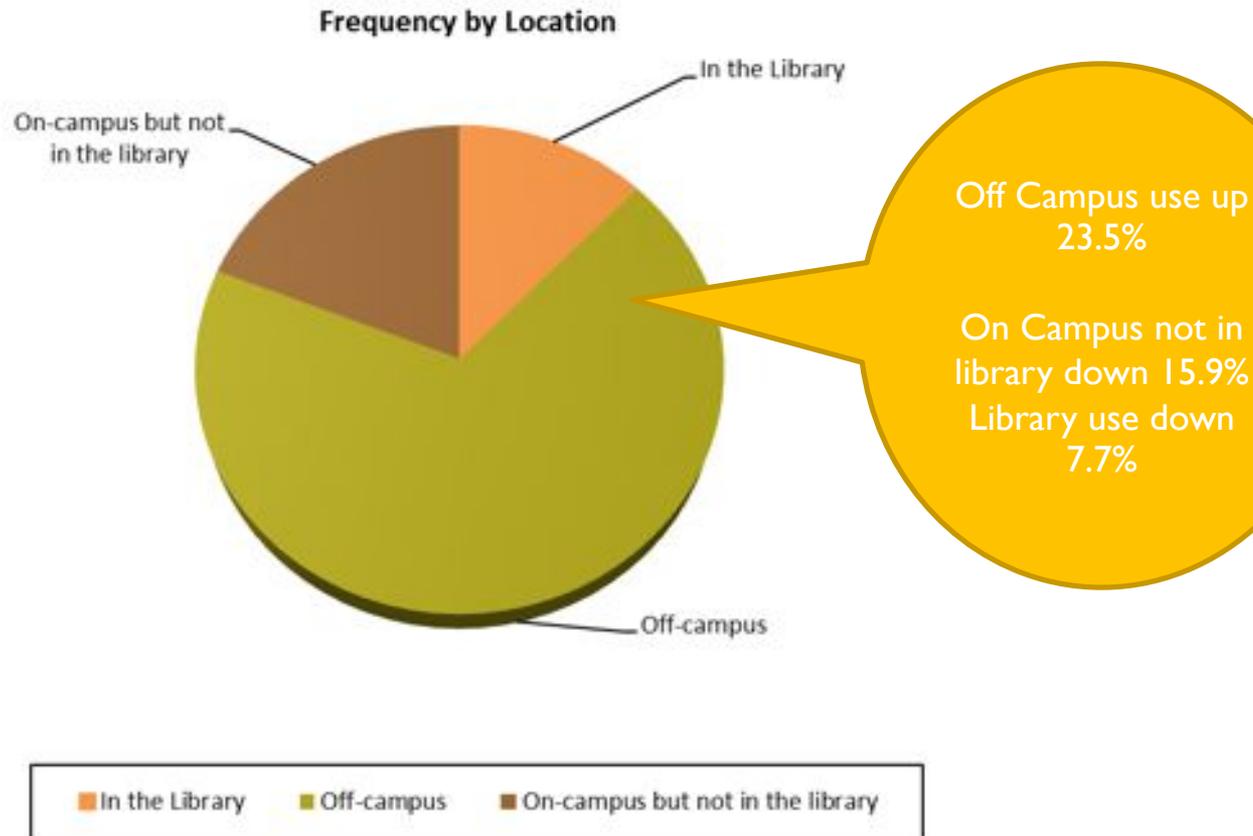
# Findings: Frequency of Use of Electronic Resources by Purpose of Use

Frequency by Primary Purpose of Use



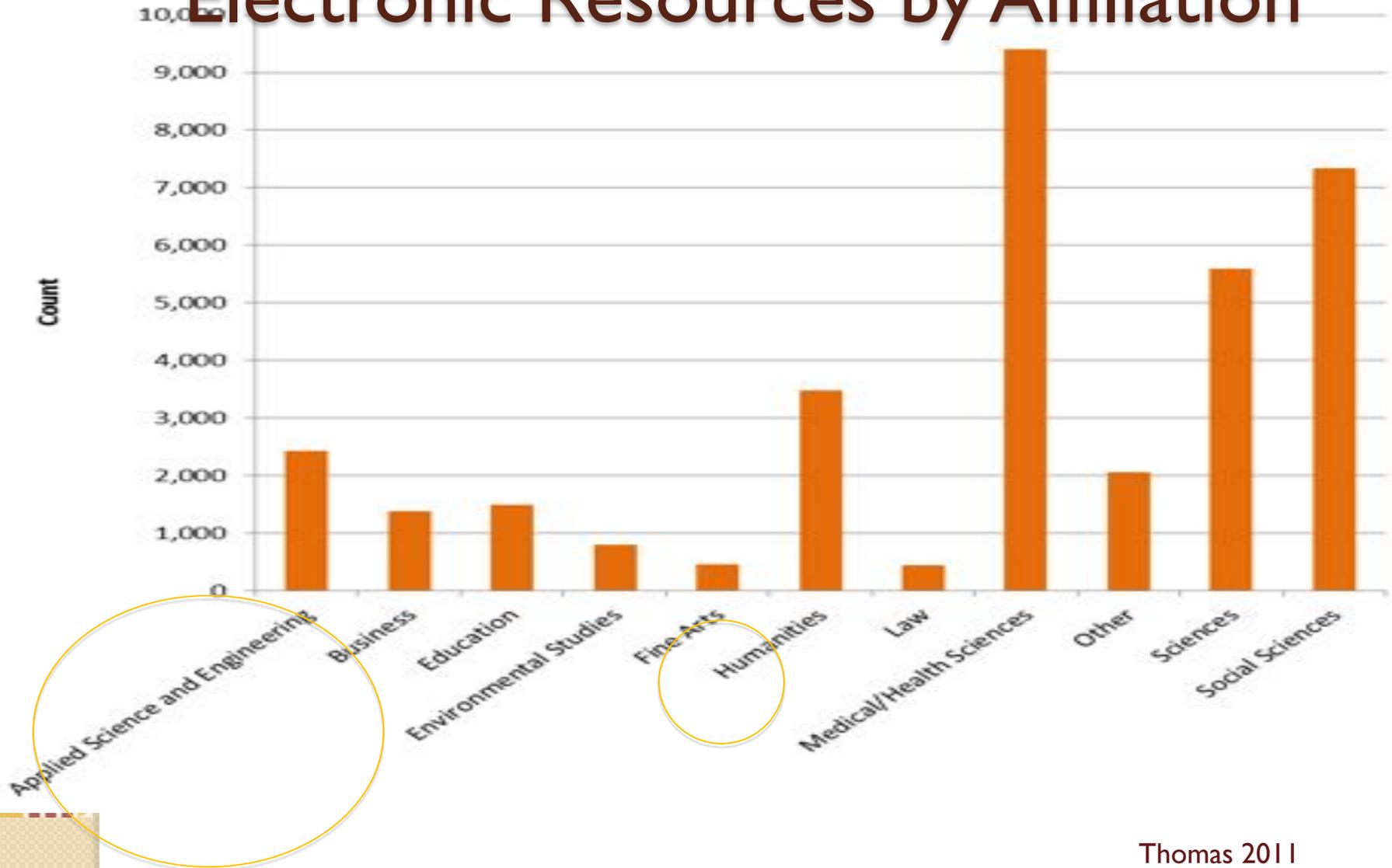
- Sponsored (funded) research (for Faculty, Graduate Students, staff)
- Other (non-funded) research (for Faculty, Graduate Students, staff)
- Coursework/Assignment
- Patient Care
- Teaching
- Other Activities including General Interest

# Findings: Frequency of Use of Electronic Resources by Location



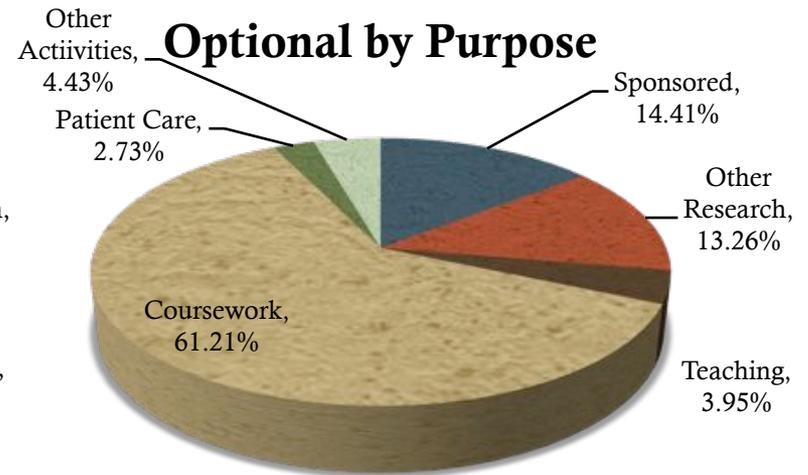
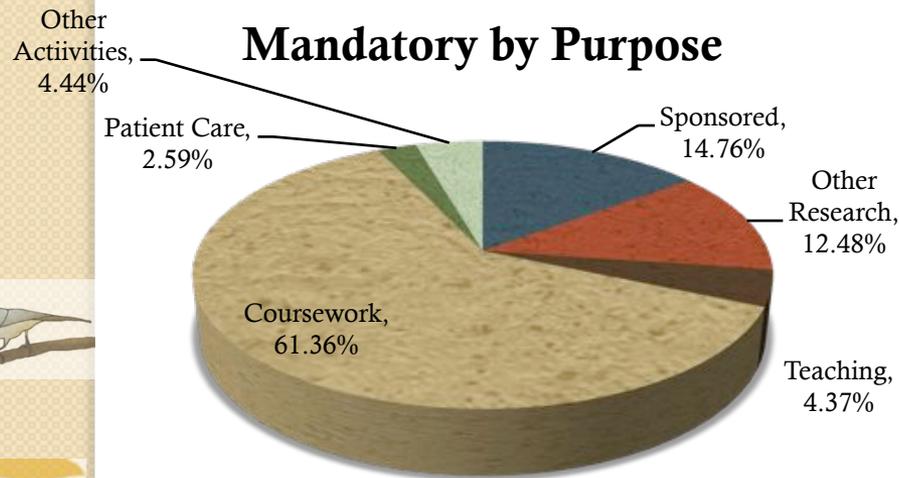
Thomas 2011

# Findings: Frequency of Use of Electronic Resources by Affiliation



# Mandatory v. Optional – Five Universities Purpose of Use

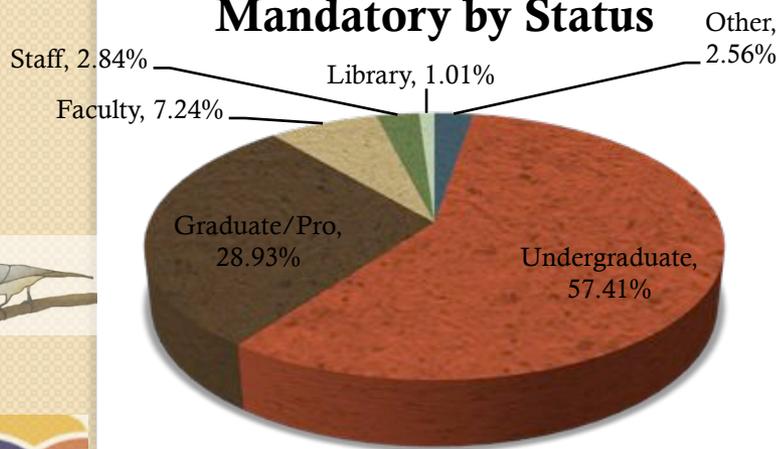
Carleton, Ryerson, Nipissing, UOIT, Western  
n=6962    mandatory=4255    optional=2707



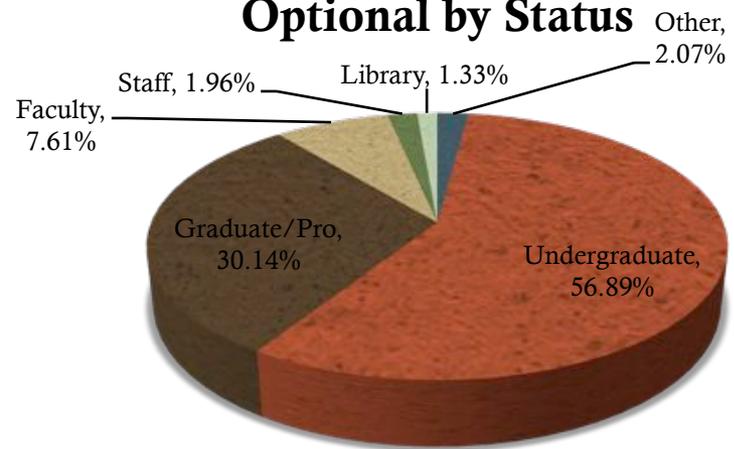
# Mandatory v. Optional – Five Universities Status

Carleton, Ryerson, Nipissing, UOIT, Western  
n=6962    mandatory=4255    optional=2707

### Mandatory by Status



### Optional by Status



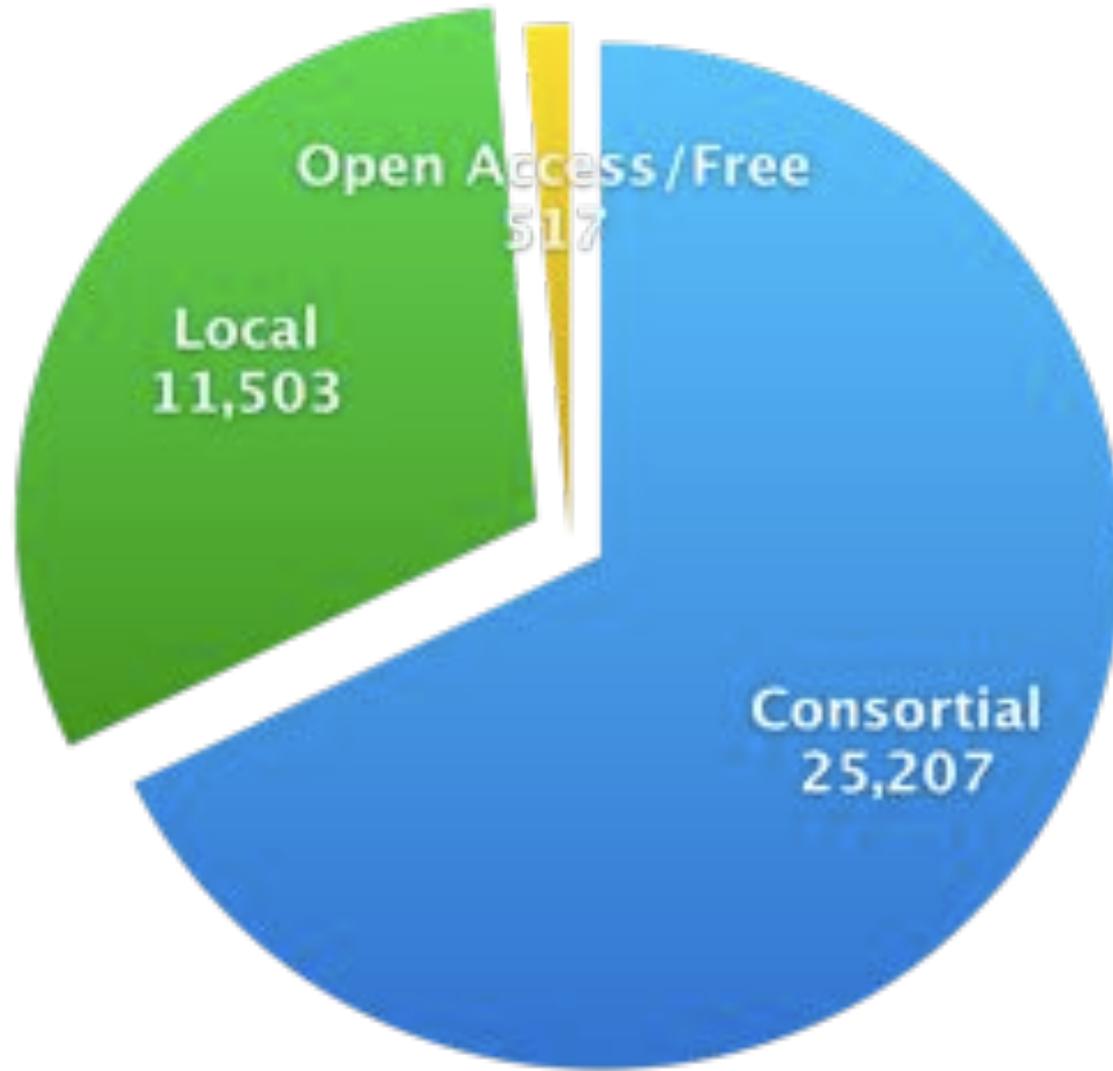
# MINES Results – SFX and Target URLs

- We will be able to investigate numerous questions of interest including:
  - Purpose of use by database
  - Purpose of use by resource type (book, journal...)
  - Uses of resource types relative to size of those collections
  - Frequency of use relative to the size of a vendor/publisher collection
  - Uses by title for heavily-used titles (Nature, Science, etc.)
  - Uses of resources by patron type and discipline

# SFX – Target URLs

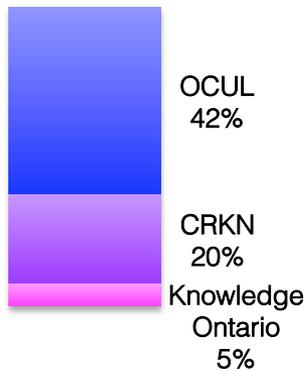
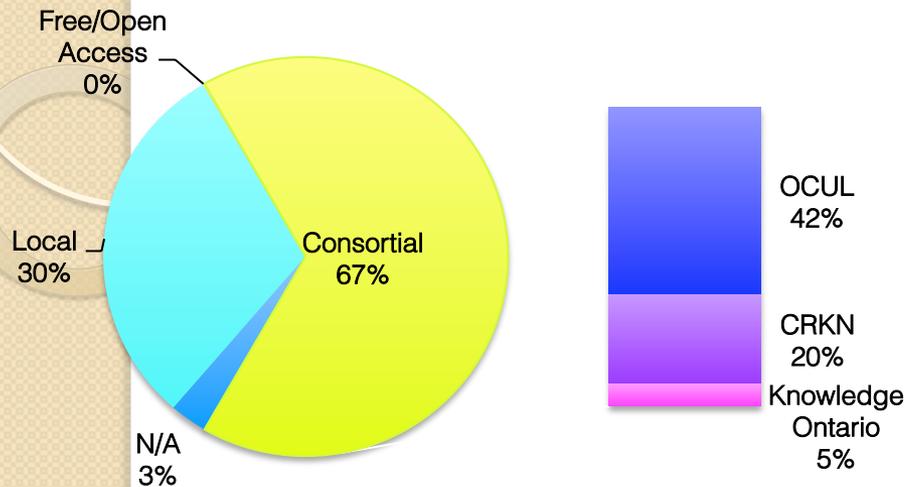
- SFX provided information to add six additional variables for each survey response:
- ISSN / ISBN
- Normalized Publisher or Vendor Name
- Database Name
- Resource Type: EJournal, ebook. Database
- Subscription Type: Consortial, Local, or Free/ Open Access
- Consortia: OCUL, CRKN, Knowledge Ontario

# Consortial – Local - OA

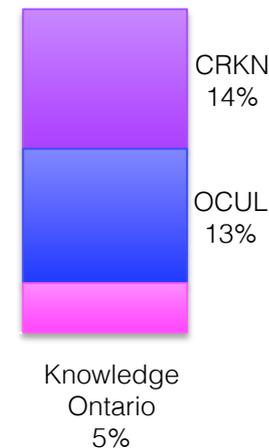
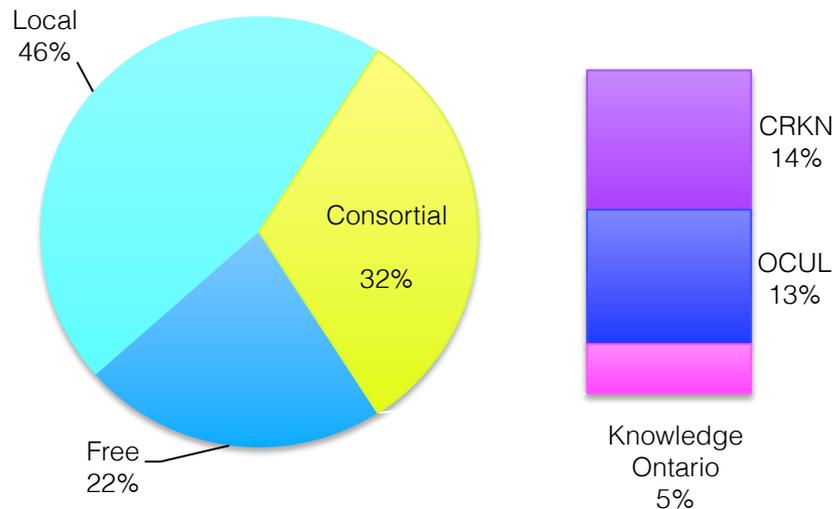


Thomas 2011

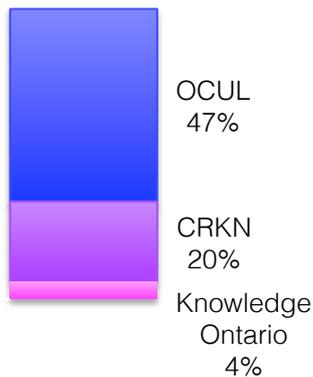
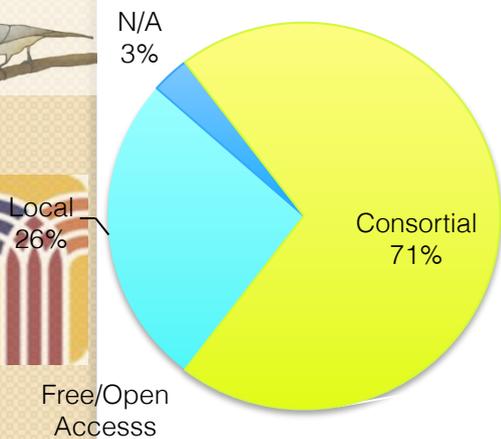
## Uses in MINES: Subscription Type Large School



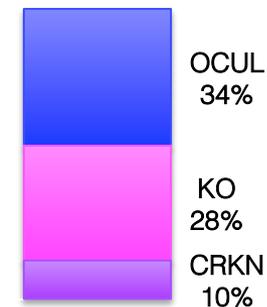
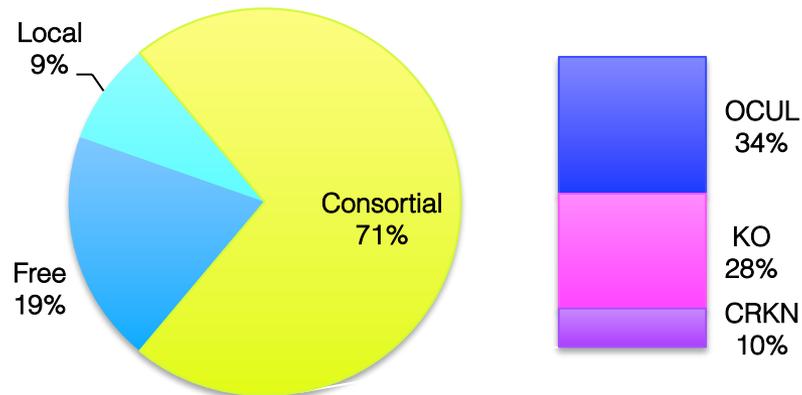
## Titles available in SFX: Subscription Type Large School



## Uses in MINES: Subscription Type Small School



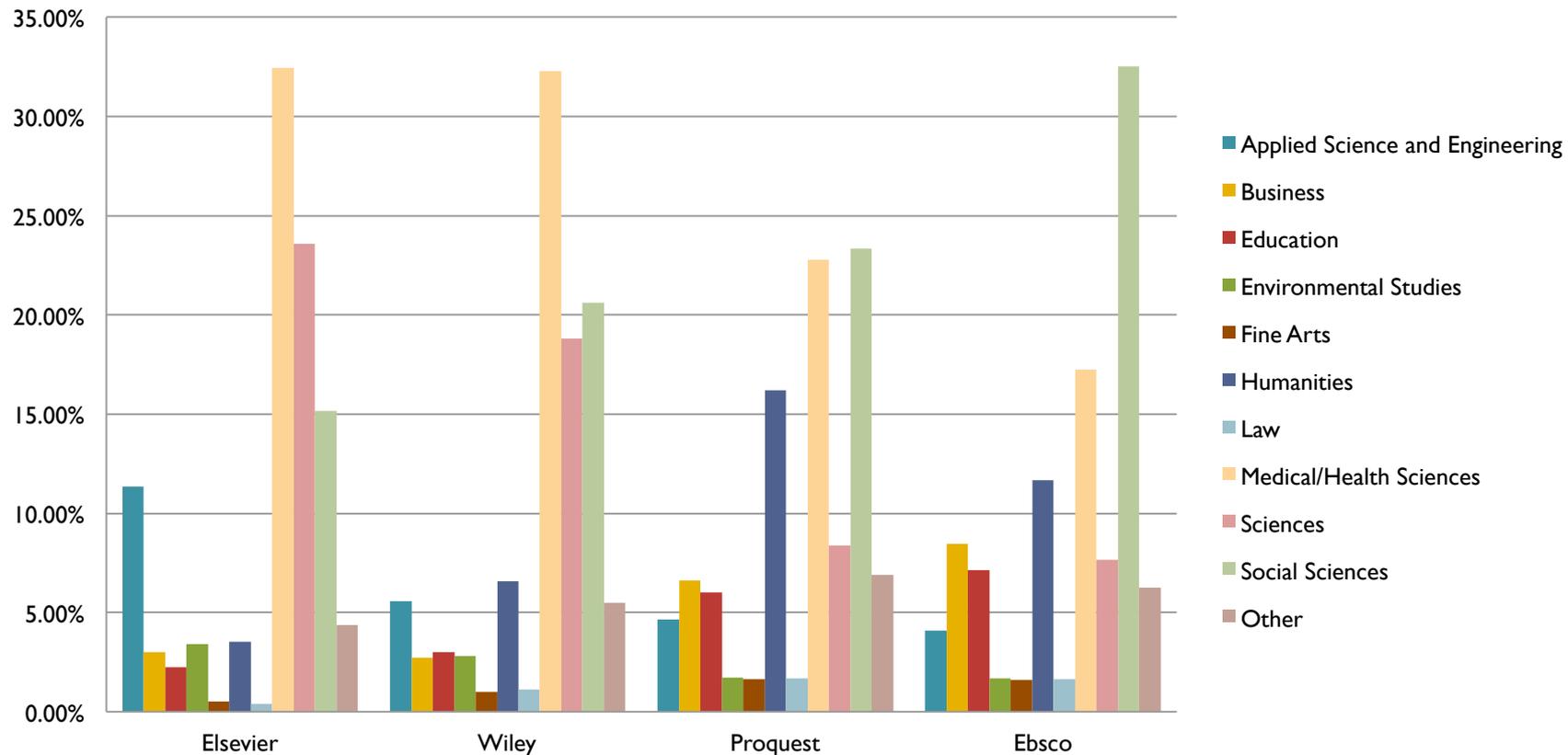
## Titles available in SFX: Subscription Type Small School



Thomas 2011

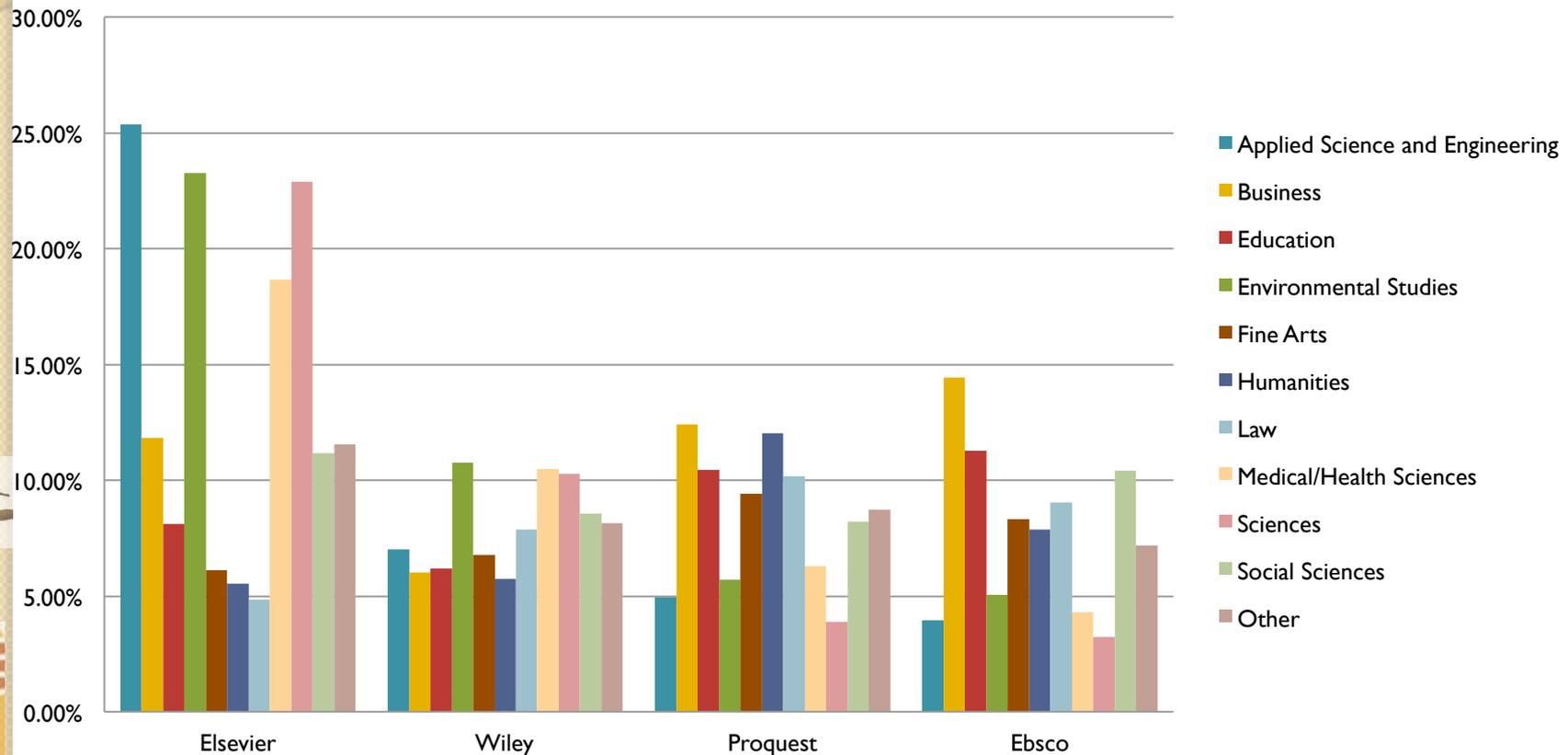
# Within each publisher what is the breakdown by affiliation?

## Affiliation by Publisher



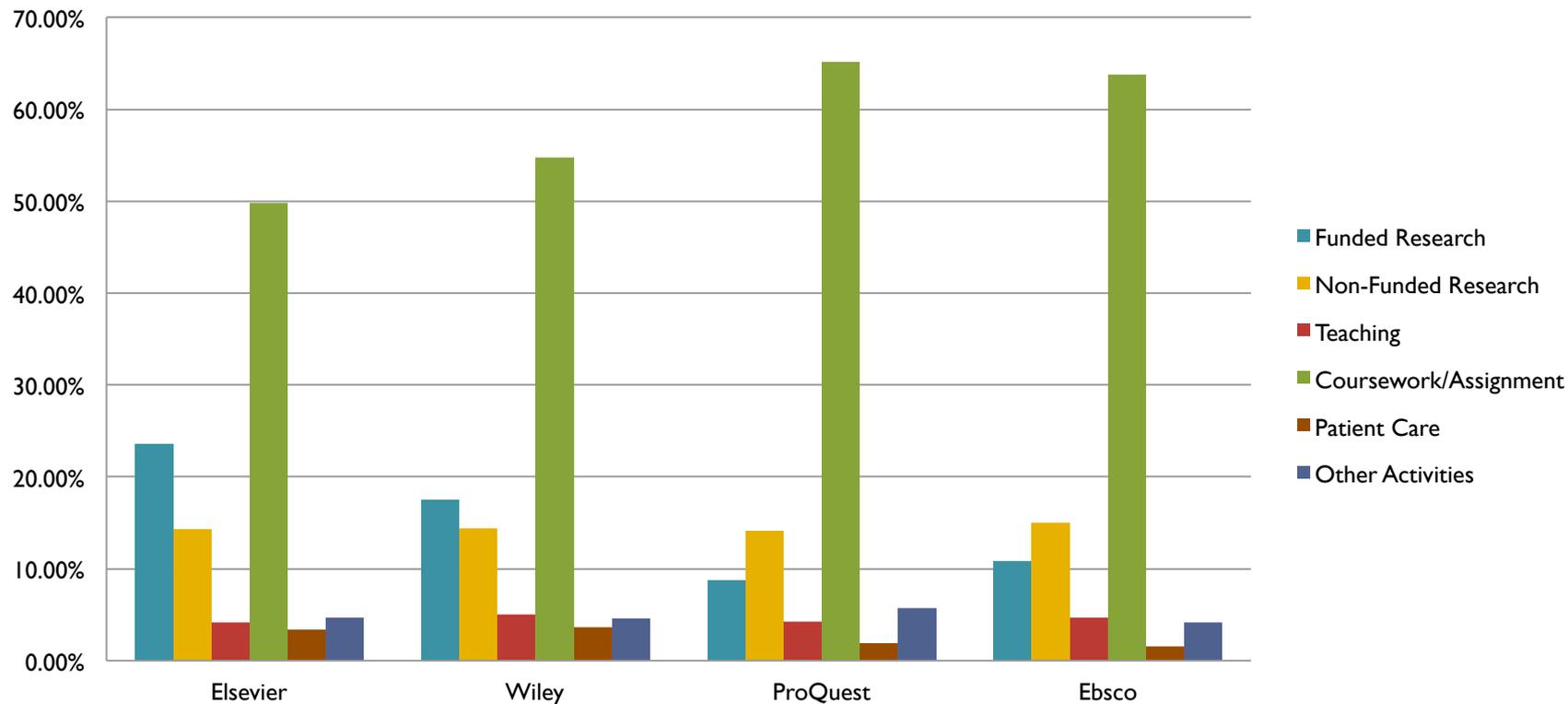
# Within each affiliation what is the breakdown by publisher?

**Affiliation by Publisher (% Share of Category)**



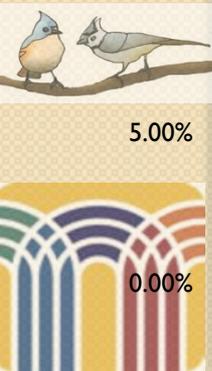
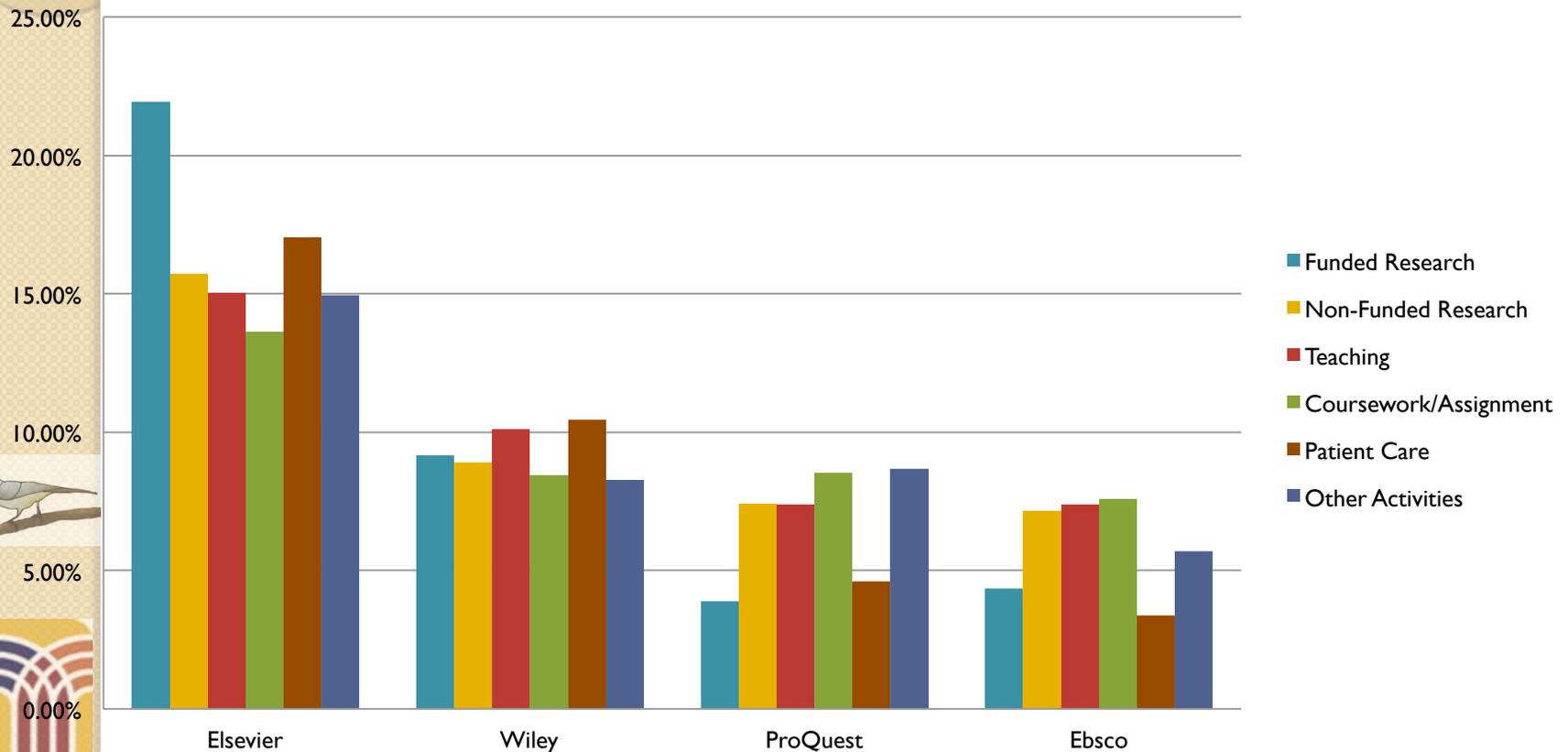
# Within each publisher what is the breakdown by purpose of use?

## Purpose of Use by Publisher



# Within specific purpose of use what is the breakdown by publisher?

**Purpose of use by Publisher (% Share of Category)**



# Findings: Comment Code comparison (SAFI)

- **04/05:**

- Annoyance with the survey accounts for 20.5% of the total comments and 76.1% of negative comment
- $n=748$

- **10/11:**

- Annoyance is 12.8% of the total comments and 41.9% of the negative comments
- $n=1521$



# Practical Implications/Value

- What are the implications of running the survey in session mode vs link-resolver?
- How does the use of consortial products compare to that individually-licensed content?
- What conclusions can be drawn about the efficacy of surveying users via an open-URL resolver?
- How will MINES fit into the overall assessment program for OCUL?
- How useful is the contextual information from MINES in understanding user workflows?
- And what about open access?



# Value of Digital Content

- Value of digital content will be in the services that surround it.
- Scholars Portal may be the future
  - Surrounding content with services in a controlled environment
  - Infrastructure of assessment to quantify value
  - Saving time for the patron
  - Connecting people to information in value added ways

