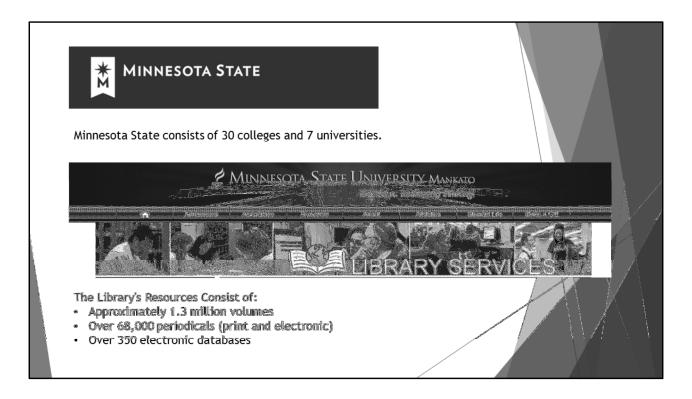


Hello and thanks ER&L for having us. I'm Nat and this is Evan. We're here to talk about journal collection analysis.

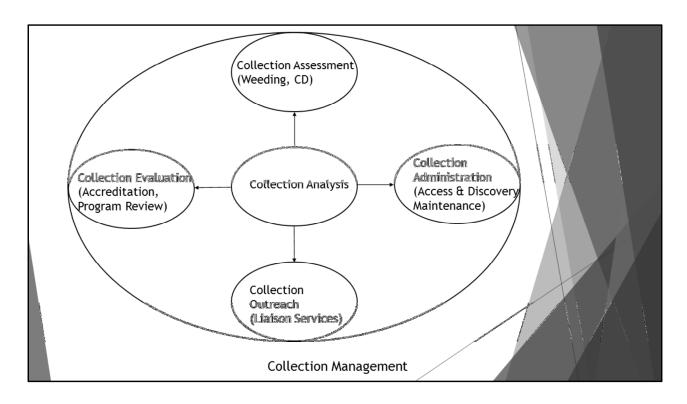


A little bit about us...

We are the largest university in our state system, which excludes the University of Minnesota and its campuses.

Library collection development is not coordinated in our system, although we also have a collection development consortium called Minitex.

Here are the usual stats, but of course everyone here probably has a good sense of how meaningless the journals number actually is. We'll be talking about more meaningful journals information in just a moment...



So let's get started...

- 1. At Mankato, we've developed a set of methods and tools for collection analysis. Collectively, we call those methods and tools the JCA db, which stands for Journal Collection Analysis database. The JCA db can match any journals list to any other journals list, and any number of journals lists, pretty efficiently. The efficiency of the JCA db depends on the number of lists we are combining and the problems we encounter in our data sources, which can be few or many.
- 2. We've found that the JCA db is efficient enough and flexible enough to allow us to create many different kinds of reports in relatively short time-spans. As a consequence, we've found that we can apply the outputs of the JCA db to many different areas.
- 3. You can see on this slide that we consider Collection Analysis to be an essential support function. Collection Analysis supports other library functions such as Collection Assessment, for weeding and collection development, and Collection Administration, for access and discovery maintenance. This presentation is about how we use collection analysis to support collection evaluation, for accreditation and program review, and collection outreach, through liaison services.

Prototyping Project Management Life Cycle (PMLC)

The Prototyping PMLC loops through <u>brief</u> planning, development, delivery, and feedback stages as often as necessary until the solution is "finished" - which is simply a decision to discontinue development, for whatever reason.

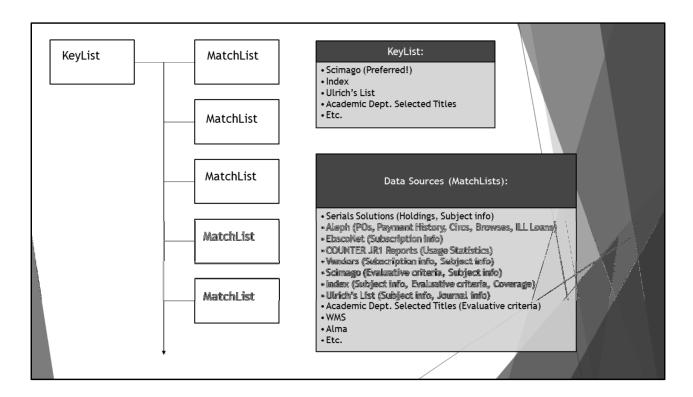
Wyaadii, R. K. (2009). Effective project management: Traditional, agile, extreme. holizmpolis, IN: Wiley Publishing, Inc.

Teams:

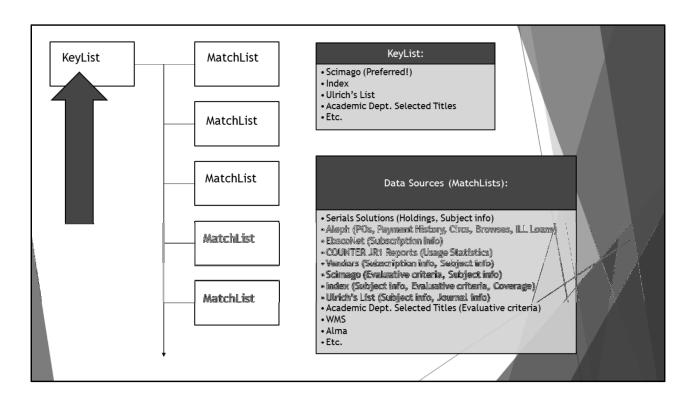
- 1) 3 Dev Teams
 - a. MS Access JCA db Version 1/ Report Development
 - b. MySQL JCA db Version 2
 - c. Collection Administration/ Package Maintenance
- 2) 1 Liaison Services Consultant
- 3) 1 Steering Committee

You might wonder how we've developed the JCA db. Well ... actually, the focus of this talk is not on how we did it. Suffice it to say:

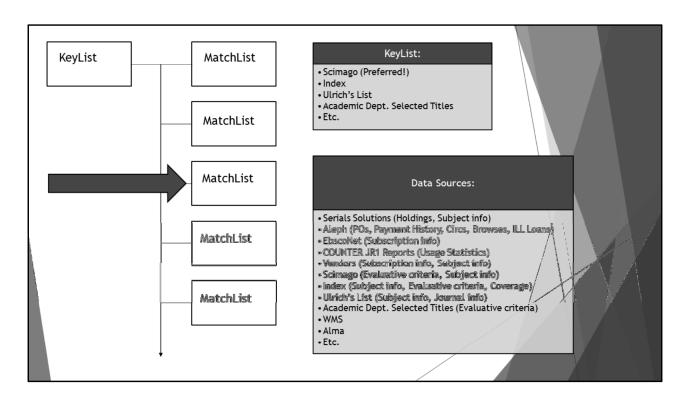
- 1. We follow an adapted version of the Prototyping PMLC: see definition on screen.
 - 1. We've looped through numerous iterations of development.
 - 2. We used early iterations of this DB for several purposes, mostly focused on Collection Assessment. For example, we created a top-down Journals Collection Review using the JCA db, as well as a Remote Storage Periodicals Weeding report. These early applications of the JCA db helped pay for the further development of the DB. They provided proof-of-concept and early cost-efficiencies which inspired us to continue adapting the DB to new needs.
- 2. We have pursued our project by employing small, agile, overlapping teams. Actually, we avoid big teams like a plague, and we don't allow existing bureaucratic entities inside our teams. We pursue feedback through one-on-one meetings or through presentations, like this one.



- 1. You might also wonder how the JCA db functions. But there's no time here. We'll eventually publish an article specifically on that topic, where we will go into more detail about how we use multiple matchpoints, confidence checks, and so on, in order to produce our outputs.
- 2. For our purposes here, I just want to make the point that the JCA db can use any journal-related data and can produce many kinds of reports. This talk, however, is focused on just one kind of report which has been especially well-developed. For the purposes of this talk, we can think of these reports under the broad rubric of liaison reports. We think these liaison reports are pretty neat and we like the results we've achieved by providing a liaison support service. Evan will walk you through the liason report, and the service, in a moment.
- 3. Before Evan takes over, though, I'll mention some of our jargon, because it's hard to avoid.



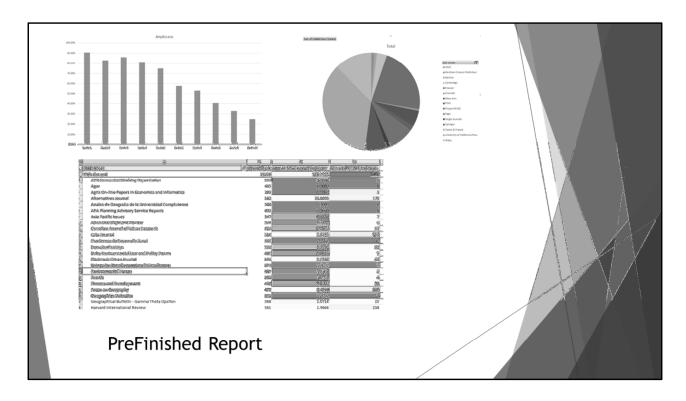
1. We use a subject-area "keylist" as the backbone for our reports. We've used Indexes, Ulrich's subject reports, lists of preferred journals from academic departments, and Scimago subject lists as keylists.



- 1. We then use mostly automated methods to harvest data from all of the lists we want to combine for a report. We generally call these "matchlists."
 - 1. We can use any journal related data we've so far encountered, including holdings data, ILS or LPS acquisitions or other data, vendor lists, usage reports, subject lists, local data, and so on.

															١	
	Total Does	Total Days	Citable Docs			Current Access	Morninel	Photo-	tributed	nese ate	an essa	4-8 6-	MSU typpaect	SEASE OLD		Nominal 2005 All
Dife	COUNTY		201 101000	Massana	Providers			100, 700,			rau cuur Usaga				Uses	
Program in Honor Geography	44		132		4	Sahoratotism	\$1,298,00	\$	133.96			- 60	6	55		5.41
Blabal Endrownsortal Charasa	126		473		¥	Subscription	\$1,609,00		96.12				1,2506	70		72,39
Journal of Economic Geography	40	2000				30 400 B 10 400 CC 15 610	- Gradinica and	~	ar constant		mentapolitic e	- Can Ed	OSMOVE 4CID		-	WORLD- I
Journal of Travel Research	57	191	139	3	2	Subscription	\$ 930.00	ŝ	190,31	27	III 1	60	0.8466	26	Ś	34,44
ISPES Journal of Photogrammetry and Remo	173	507	497	3		Subscription	\$1,052.00	Ś	62.84	86	DD 2	39	0.4809	86	Ś	32.23
Longe Range Planning	81					Subscription	\$2,763.00	_~	165.05	8	2,191.0	57	0.7600		ŝ	345.38
Economic Geography	20	55	51	8		Subscription	\$ 401.70		20.21	38	2	19	4.2941		\$	10.57
Antipode	97	217	214	3	2	1 year ago	\$1,276.00	Ś	57.44	31	[] 1	61	0.7523		\$	41.16
Transactions of the Institute of British Geog	58	147	138	4	3	Subscription	\$ 826.00	\$	37.18	52	2	16	1.5652	14	\$	15.88
Handbook of Regional and Urban Economics	0	25	24	0	0											
African Affairs	37	101	92	5	4	Subscription	\$ 772.78	S	772.78	67	III 2	17 Ĵ	2.3587	12	\$	11,53
Business Strategy and the Environment	49	128	126	2	2	Subscription	\$2,067.00	\$	93.05	3		17	0.1349	3	\$	689.00
World Development	239	728	692	3	1	Subscription	\$4,275.00	\$	255.38	99	[[[[]]]] 4	45	0.6431	99	\$	43.18
Planning Theory	20	76	69	3	1	Subscription	\$1,000.00	\$	118.51	4		43	0.6232	4	\$	250.00
SWASE Characte Charges	57									i						
Stelling and Earthropean	350	1678	3,045		2	Sofurciliption	\$3,591.69	ś	257.80	622		37	0,1992		\$	64.21
Political Geography	76	10%	100	2		Selections	\$1,789.09	\$	165,67	<i>10</i>	1111 2	26 J	2,6769	87	3	20.83
Accesse of the Associous Association of Gray	98	347	2/0	2	9	Deck overlyal Seen	\$1,894.28	\$	98.21	193	11111 4	38	1,6907	229	\$	28.78
Programs to Planting	20		55 mm 645 pt	- 2		#edam@dtos	\$1,096,09	\$	93,47	22		48[]	3,0949		\$	199,404
Barra, Maria Statistica	274	393	239			Schoolpilas	\$ 405.60	8	27.2%	- 8		23	0.0340	7	\$	527,000
Defensions and Pleasing D: Sedaty and S	98	266	2007	- %		Subserbelion	\$1,534.00	\$	127.04	10		139	6,000		\$	1012.40
No. of Contract	8 2	254	284			Subsactipitien	8 -	\$	100	2		119	0.3627		\$	
Base Re		(delta)	99000	. 03	~ 00	latin alkano or a Principal annin i	(Air AMACAM)		ne est [2550		(148m	_{3-ye} se central			den Ask. 1

1. We then use mostly automated methods to create what we call a "Base Report" which includes all of the data or data calculations we want to share with our academic departments.

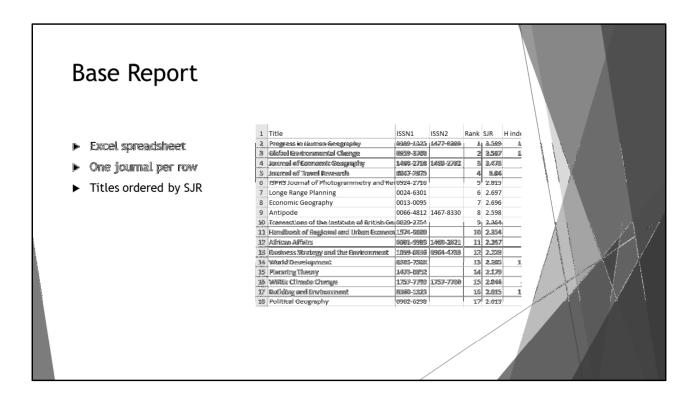


- 1. Finally, we create a derivative report we call a "Prefinished Report" which includes a range of data visualizations. We call this report Prefinished because Evan, as the liaison service consultant, will take a step further to produce Finished reports, such as one-sheeters that are easy to read and digest.
- 2. The standardized PreFinished reports can be produced in 1 day by a technician, while customized reports will take longer, although there are various steps to feed and maintain the DB throughout the year, for example, to update data.
 - 1. Evan will now take over and talk you through our process a little more slowly



While the JCA Db can help us to do an overall evaluation of our journal collection, as an individual liaison I want information that will help me best serve the academic departments and programs I serve. This is a goal of our journal reports and the liaison service, to provide our librarian liaisons with information to better serve the departments and programs they work with. The first step in creating a report is identifying an appropriate keylist. A keylist can be any list of titles that can represent the world of journals for an academic discipline. In the simplest form, our reports generated through this service, compare our holdings to the overall world of journal literature associated with a discipline. Where do we get these?

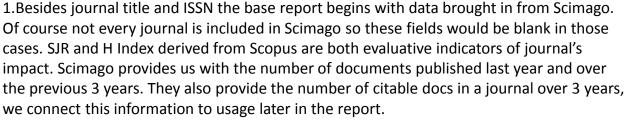
- 1) Scimago: Uses citation data from Scopus to analyze literature in various disciplines.
- 2) An index, abstracts, or database that shares its list of titles indexed
- 3) Ulrich's Periodical Directory
- 4) Departments may generate their own lists or we find lists in other places.



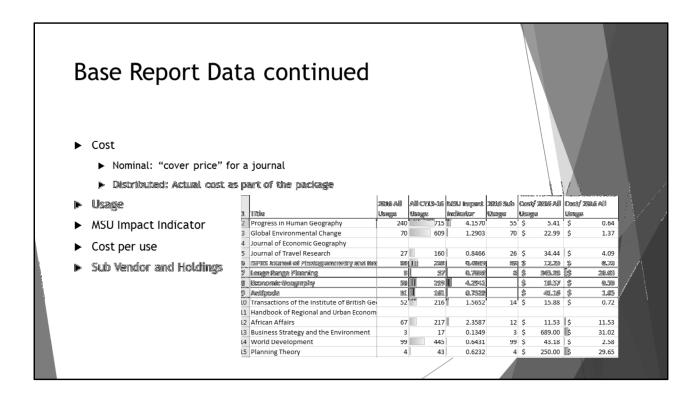
- 1. Reports utilize Excel spreadsheets, The Base Report the is the initial tab
- 2. As Nat stated, This gives an overall picture of the data we have matched to the keylist and allows liaisons or departmental faculty to mine the report for information.
- 3. One title per row makes it easy to share or display as a list
- 4. We have incorporated Scimago journal information into the JCA Db, so we can sort each list by the SJR number (This is Scimago's impact indicator, which basically expresses a relationship between number of documents published and number of citations, with some citations having greater weight.) One visual benefit of this display is when shared with faculty they will hopefully recognize high impact journals as soon as they open the file.

Data in the Base Report

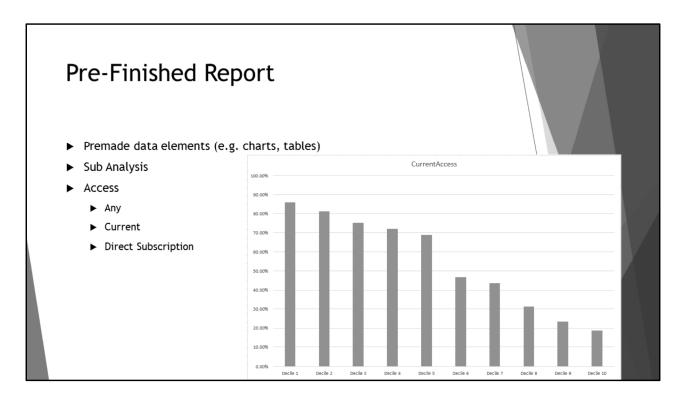
- ▶ Scimago data
 - ► SJR
 - H Index
 - ▶ Number Docs published 1yr, 3yr, number of citable docs
- ▶ Venues: # of databases/vendors we have access to the title
 - ▶ Providers
 - OA Venues=Open Access
- ▶ Interlibrary Loan Data
- Current access
 - Subscription: direct sub from a vendor
 - ► Current Db: current access, but not direct (aggregator)
 - ▶ If date listed it is sub end or embargo



- 2. Venues can tell us about overlap in access which can aid in collection development decision making, but it is also useful to show the number of providers as some journals might have full text in 5 different aggregators, but all are from the same vendor. Open Access is also listed in the report, which is helpful here in the report since these titles do not show up as subscriptions and would otherwise look as if we do not have access.
- 3. We have included recent interlibrary loan data, which is especially helpful for analyzing titles we do not have active subscriptions
- 4. Current Access is the quick way to see how we get access. Three categories are used in this column, a) direct subscription, b) current access via an aggregator, c) some access but not current and this also includes sub date end or embargo information. This column is drawn from for a number of elements of the prefinished report we will talk about in a bit.



- 1. Journal price data has two components, nominal, which is basically the cover price of a journal, and its distributed cost which reflects the journals portion of a package or "big deal" price.
- 2. For usage we include the most recent year and data over a 4 year span. This is a nice way to quickly scan and see first if usage is strong, but also assess whether it is consistent (show Global Environmental Change vs African Affairs) Notice the conditional formatting, which provides a quick visual for looking at usage.
- 3. MSU Impact Indicator is a figure that uses the number of publications mentioned earlier and relates that to usage. It is not a perfect indicator since usage reflects all years we have for a journal, not just those years counted for number of publications. But we will tweak this a bit to try to come to a number that best reflects the importance of a particular journal to our patrons.
- 4. We have cost per use using both nominal and distributed cost. Cost per use has been an essential metric used in collection assessment
- 5. Lastly we have holdings and subscription vendor information.



As Nat stated the Pre-Finished portion of the report includes various premade data elements that can be easily shared or incorporated into a finished report that a liaison might provide a department or accreditors. We can custom make other data elements and we are exploring other data visualization tools and options, but let's walk through elements included in the Pre-Finished report

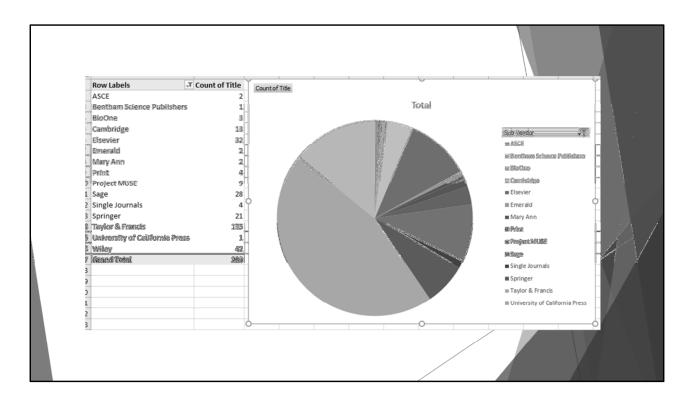
- Sub Analysis is the first tab, it lets the user quickly see which journals from this keylist
 are included in various packages. So if I want to see which geography journals we get
 from our Sage big deal, I can go right to this list. Analyzing how packages of journals or
 big deals serve a discipline is an important component of the Pre-Finished report as we
 will see, so a user might come back to this tab after reviewing the package analysis tabs
 further ahead.
- 2. We have three tabs focused on access. These show what percentage of journals we have access to on this keylist. This metric serves one of the core purposes of creating the reports, which is to show how our holdings compare to the world of publications in a discipline. The first access-related tab is for titles that we have any access at all, the next is for titles with current access and the last for those with direct subscriptions. Each of these tabs provide an overall percentage, but they also include a chart that breaks the keylist into deciles or tenths. Each decile is represented in order of highest SJR number moving left to right on the chart (The SJR number is the same as used on the Base Report, so if there were 500 journals in a keylist the first decile would

represent the first 50 journals on the Base Report). You can see that in the case of the Geography, Planning, and Development keylist, our current access is strongest with the highest impact journals, we have current access to 85% of the top decile, and our access declines as the impact does.

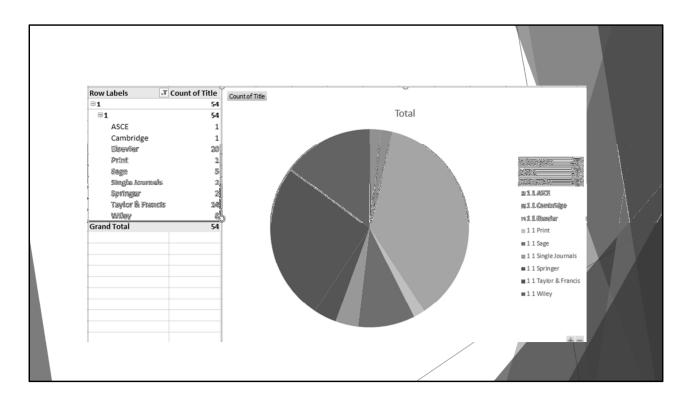
As I mentioned earlier, our package analysis tabs provide data or visuals that can help assess how our big deals support a discipline. We have 5 tabs with information on our journal packages.

- 1. The first simply shows which vendors have the largest number of journal titles on this keylist
- 2. The second tab shows the number of citable docs per vendor, this provides an alternative metric for quantity of coverage for a discipline
- 3. The third shows how well the vendor is represented in the highest decile of journals on the keylist. In this case we are getting at quality and provides an interesting comparison to the first two tabs.
- 4. The fourth tab shows which vendor received the most overall usage in the last year
- 5. And the last is 4 year usage for journals regardless of platform...so if a journal is getting some use in an aggregator, but we have a direct subscription the aggregator number is added to the total.

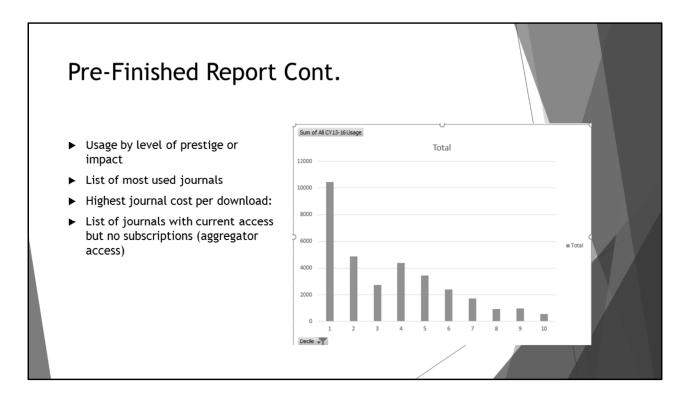
Each includes a table and pie chart. This next slide shows number of titles per vendor, so an example of the first tab.



So in this example we can see that Taylor and Francis makes up close to half of the keylist journal titles we have subscriptions to. Let's compare that to titles in the top decile...so the 10 percent with the highest SJR number



We can see that while Taylor and Francis clearly had highest quantity of journal titles, Elsevier makes up the highest percentage of high impact journals. Again the Pre-Finished Report can be shared directly or the liaison can pull graphics or a table out and use it however is best to communicate with their department.



The next tab shows usage by decile. Not surprisingly, since we have better coverage of high profile journals, they are going to have higher usage numbers. That said we see that the top decile is heavily used for this discipline.

The four remaining tabs are all lists of journal titles can be quickly used without having to sort from the Base Report.

- 1. The first is simply a list of the most used journals over the last 4 years
- 2. The second shows the highest cost per download. This is based on vendor usage not overall usage, so if students are finding aggregator access rather than the publisher web site, important journals may show up on this list.
- 3. Third is the keylist sorted by MSU impact indicator
- 4. And last is what I call vulnerable journals. These are titles that we have current access but no subscription. We include usage and MSU Impact Indicator. The goal is help the liaison be aware of important titles we are relying on aggregator for access and might require us to monitor that title since we are not in control of our access to it.

	A		
1	Row Labels	▼ Sum of Rank	Sum of MSU Impact Indicator
2	Journal of Transcultural Nursing	259	31.6423
3	Online Journal of Issues in Nursing	237	31.3500
4	Journal of Family Nursing	114	26.7000
5	Medsurg nursing: official journal of the Academy of Medical-Surgical Nurses	358	25.5000
5	Pediatric custing	a7a	
7	Naming Beneroday	383	39.3043
8	Managing Stricts	80	27.5177
	January of Maning Administra	S1	. 25.660
	Critical Care Muse	239	14,2353
11	Journal of Advanced Nursing	66	12.6211
12	Nursing Forum	166	12.3295
	Journal for specialists in pediatric musing : JSPN	245	
	Journal of Community Health Nursing	\$43	11.3900
13	Lorennel of the Assertion: Academy of Nume Possiblicaness	288	11.0505
16	Journal of Cidid and Adelerment Psychiatric Novelng	22%	10.5550 V
17	tearnal of Naming Management	58	
瓣	Issues in Comprehensive Redistric Nossing	313	9/4295
M	inumal of hobric surring : official journal of the American Holistic Nieses' Association	275	
20)	Journal of Psychosocial Numbeg and Mental Health Services		
21	Symbolic interaction	177	8.1579

Overview of Reports

- ▶ Compare our holdings to the world of publications in a discipline
- Provide easy to consume information about journals and their use in specific disciplines
- Compare the impact of journals to our campus to their impact within the discipline as a whole
- ▶ Compare our usage to cost
- Analyze how and which journal packages support academic disciplines
- Identify "vulnerable" journals, where we are not in control of our access.

To summarize the reports compare our holdings to the world of publications in a discipline and provide liaisons and departments easy to consume information about journals in their field and evidence about their use. This allows us to see how our campus usage compares with the impact of given journals within the discipline. The reports help us assess our collections, including looking at how much impact we are getting for the price we pay. It helps us analyze which journal packages are important to academic disciplines and which would be impacted if we needed to cancel. Lastly the reports can help liaisons identify titles that we rely on aggregators for access and may need monitoring to ensure we can supply access to our patrons.

Goals of the Service

- ▶ Provide content that can help start conversations with academic departments
- Support decision making and communication about potential journal adds and cancels
- Support departments in accreditation and program review
- Provide information/evidence that can inform liaison subject area work
- Evidence to academic departments and the campus that we are systematic in our analysis and good stewards of the budget.

As stated earlier these reports are at the heart of a service we are providing to our liaisons so they are armed with information to inform decisions and to improve their work with their departments. While we have touched on this throughout the discussion of the reports, here are the overarching goals of the service.

- 1) We want to help liaisons start conversations with their departments. Sometimes relationships grow stale, some departments are more engaged with the library then others. We hope these reports or components of them can help jump start relationships or take strong relationships and conversations in new and exciting directions.
- 2) The information provided supports collection assessment and development. As the Library or departments are thinking about adds or cancels we hope these reports can help to ensure we are making informed decisions.
- 3) Every academic department goes through some version of accreditation or program review. In likely every case there is some question from reviewers about how the Library serves their students. We feel our journal holdings are a strength of our Library, these reports can help a department show that it is a strength to their reviewers/accreditors. Many of our liaisons are already involved in supporting accreditation and program review, we hope these reports can save them time and provide new resources to their work in this area.
- 4) As liaisons we all have anecdotal evidence or personal experiences that shape our view

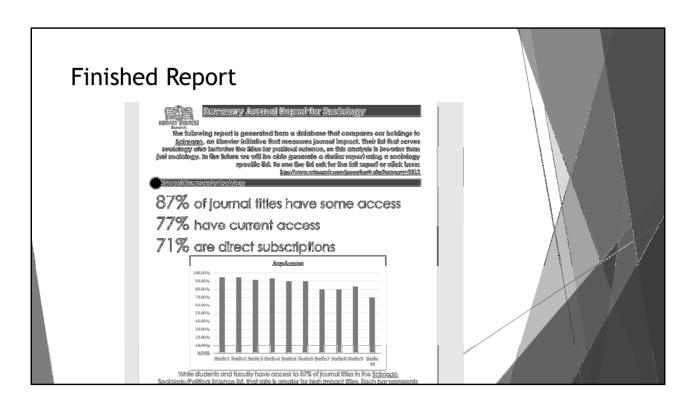
- of the disciplines and departments we serve. We hope these reports can help us check our assumptions and add to our knowledge of both the field of study and our curriculum, ultimately making us better liaisons.
- 5) We feel this service can help the Library to demonstrate to the campus that we are systematic in our analysis of our collections and are good stewards of the budget we are given.

Service to Liaisons

- Identify and negotiate appropriate keylists
- Discuss possibilities for custom aspects to a report
- ▶ Walk through the data with liaison or other stakeholders
- ► Talk about how to use report and communicate to external audiences
- Provide "finished" reports or "one sheeters" for sharing with departments or reviewers
- ▶ Track journals that are valued by a department

Beyond providing reports, I work with liaisons to support their use of the information we provide. Examples of what I do in this role include

- Identifying appropriate keylists to use in creating a report. I have gone through each
 academic department or program on campus and identified possible keylists. As time
 allows we may preemptively create reports for departments so there is at least a
 standard report available instantly upon asking for information. This would allow us to
 be especially nimble.
- 2. Discuss customizations to the standard reports. For instance if they wanted some analysis of the journals we do not have access to, I can manually add information to the report
- 3. I can walk the liaison through the report and provide ideas for sharing that information with a department
- 4. I have created a number of one page documents that provides highlights from the report and incorporate data elements from the Pre-Finished reports
- 5. One thing we would like to do more of as more liaisons share information with their departments is to collect information from them about the journals they value or learn if there are "vulnerable titles we should monitor



Here is an example of a simple one sheet finished report that liaison brought with them to an academic department meeting. It took 30 minutes to put together by simply bring elements from the Pre-Finished report into a Word template.

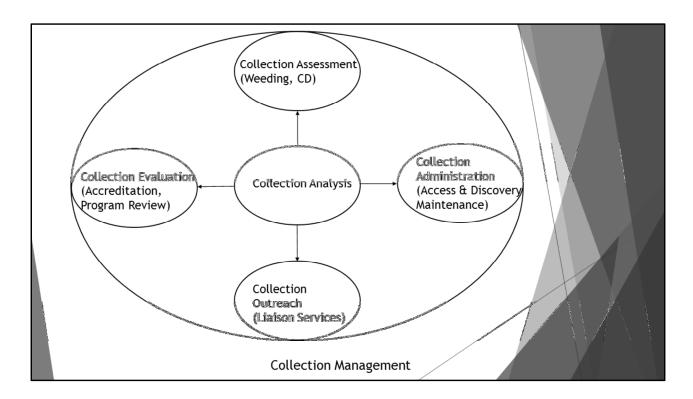
Looking into the Future

- ▶ Improve on data visualization and appearance of "finished" reports.
- Incorporate citation analysis information
- Systematically inform and query departments to determine titles of value
- ▶ Build on this model to find other ways to support our work with departments.
 - ▶ Determine new needs for analysis that are out of the scope of journals
 - Collect feedback liaisons receive or examples of best practices in working with departments to share with all in the Library

While I believe we will always be looking to improve the reports and the services we provide to liaisons and departments there are a few areas we planning to work on in the future.

- 1) We would really like to improve on data visualization and find ways to display information in ways that communicate well to departments. One of our team members is experimenting with Tableau and so we are excited to see what ideas he might have to improve in this area.
- 2) We would love to incorporate citation analysis into our reports. Primarily this would be identifying the journals our faculty are publishing in, but it could also be an analysis of the journals they use in their published research as well as the journals used by grad students' capstone projects.
- 3) We want to systematically inform and discuss about journal titles of value. We can record the results of these conversations and follow up with surveys. This will be especially helpful if we get into an environment where we need to make significant cuts, having this information in advance can help us better plan and communicate if we need to make difficult cancelations.
- 4) Lastly can this service be built upon to serve collection work outside of journals. Collection analysis of our book and eBook collections would be useful and would help to improve liaison relationships in disciplines where books are more prominent within the discipline. Also as liaisons connect with departments and get feedback or develop

successful connections, could we gather that information so it can be shared with all liaisons.



In addition to expanding the liaison service, we will be applying what we learned from developing this mature service to the other functional areas supported by collection analysis. For example, we are applying the model of the Base Reports along with the methods to create them to a next-generation top down review of our collections.



We need to thank so many of our colleagues who have helped in the development. Jeff Rosamond, Annalis Luck, Pujit Koirala, Zorian Sasyk. And thanks to our early adopters, who provided invaluable feedback Lisa Baures, Heidi Southworth, Casey Duevel