NASIG provided opening slide 1 of 2

NASIG provided opening slide 2 of 2

The Collections PBI: Interactive Data Visualization for Campus Outreach

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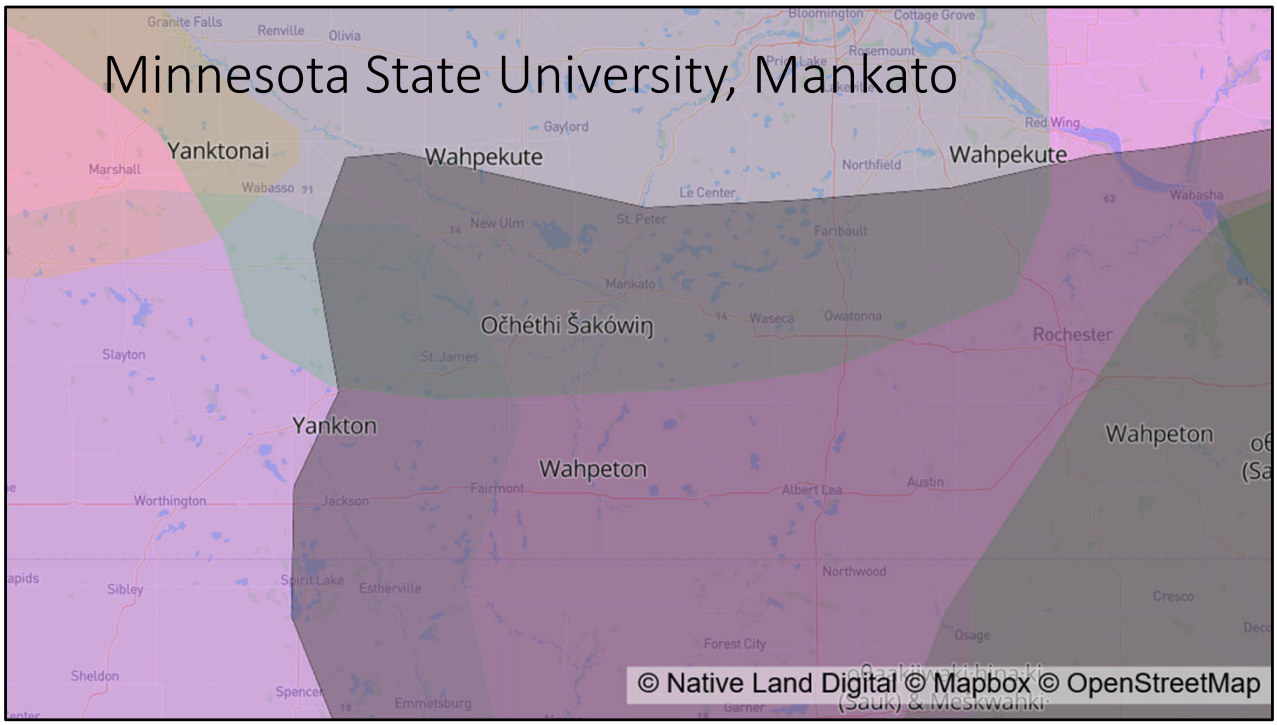
https://link.mnsu.edu/nasig23

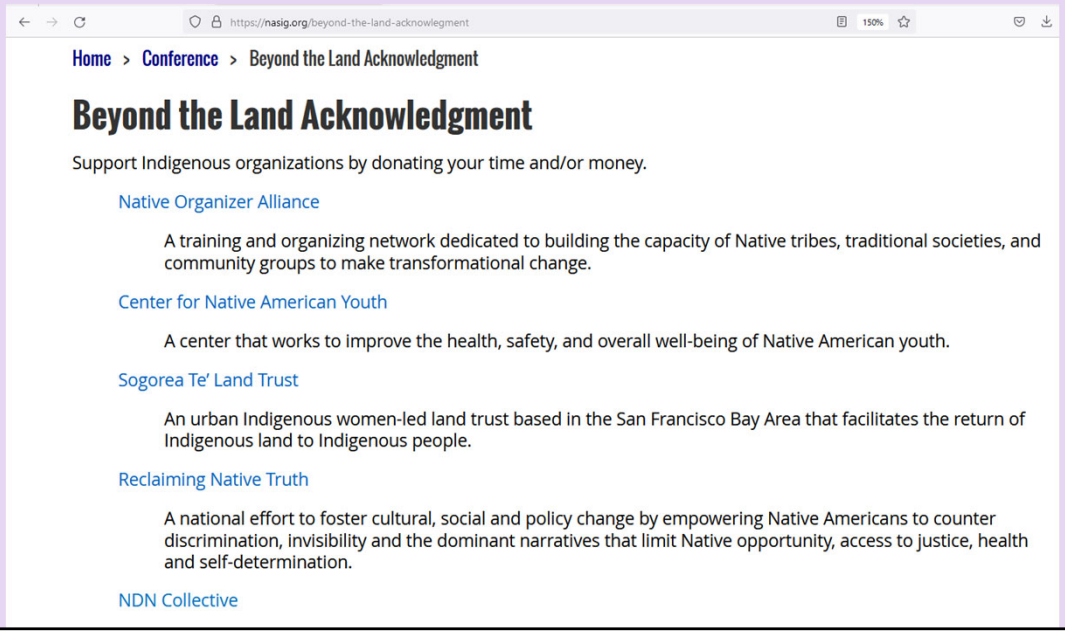
Good Afternoon, thank you for coming to this session. Before we jump right into it, in addition to the slides being available through NASIG, we have also made our presentation available through our institutional repository. You can find that link at the bottom of several of the beginning slides.

Today we will be talking about "*The Collections Power BI: Interactive Data Visualization for Campus Outreach.*" I am joined today by my colleagues, Nat Gustafson-Sundell and Evan Rusch. My name is Pat Lienemann and we are librarians from Minnesota State University, Mankato.



Being from Mankato, we think it is especially important to recognize that we live, work, and learn in the homeland of the Dakota people, and whose language frames our name—Minnesota State University, Mankato.

https://www.nasig.org/beyond-the-land-acknowlegment



Of course, further steps can be taken beyond the land acknowledgment. NASIG has provided ideas on potential ways to support Indigenous organizations and I have included that link and a screenshot of the webpage on this slide.

CPBI Overview

1. The Reports
2. The Data
3. The Interface

https://link.mnsu.edu/nasig23

Nat will explore the inner-workings of our Power BI setup next, but we thought it might be useful to provide a general overview of the collections tool first.

As an introduction, I will be talking about the pre-formatted reports, the different data elements we utilize and how we think about them, and then finally (if the internet is cooperating), I'll jump out to our actual webservice interface to preview some of the functionality and reports Nat and Evan will be referencing in their sections.

Types of CPBI Reports

- Collection Profiles: Investigate data elements across of a set of journals. Provides visualizations that represent aggregate data across the titles in the collection being profiled.
- Journal Lists: Generates table of journal titles with various data variables. Lists are interactive and can be sorted according to any variable in ascending or descending order.
- Individual Journal Title Review: Allows you to search for an individual journal title and generate trend charts and a brief table with basic information about the title.

https://link.mnsu.edu/nasig23

There are basically two types reports in the CPBI:

Collection Profiles look at our collection as a whole and provides an overall summary of the different data elements we use to assess our journals (I will cover these data elements more on the next slide).

Journal Lists generate tables of journals and different variables and can be dynamically updated and sorted by order.

Additionally, there are variations on these reports – including the title review, which generates a really nice dashboard to gauge individual journals.

I will be demonstrating the mechanics of these reports in just a few minutes and then later Evan will be providing actual examples of how these reports were utilized on our campus this last year.

Categories of Data Elements for Assessing our Journals

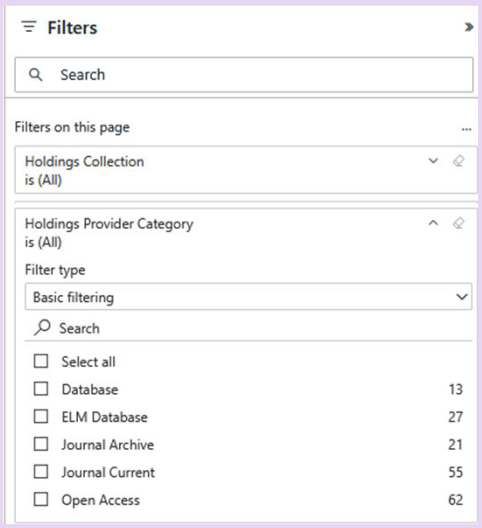
- Quality: Utilizes Scimago Journal Report (SJR), which is a citation-based metric for assessing journal quality.
- Supply: Uses holdings and coverage data to understand our access. We also use variables to understand how stable those holdings are. Lastly Scimago provides the number of citable documents a journal publishes.
- Usage:
  - Article Downloads
  - Primo Clicks
  - Print Browses
  - ILL requests
  - Year of Publication Used
  - *Southworth Ratio*

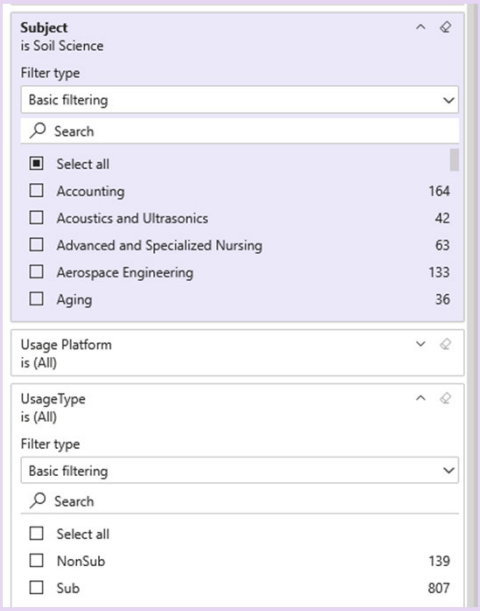
In terms of quality, we are most often talking about how much the journal is cited (and how highly it is then rated and ranked). To assess these citation-based metrics, we rely on the free Scimago Journal Report. One thing that we always like to remind our colleagues is that different fields have various citation practices – so the *quality* metric is really only useful when comparing within a field.

For supply we're thinking about kinds of access and the coverage available. One of the main differentiations we make in the supply category is between "any access" (which is that we provide at least partial journal coverage, but not necessarily including the current issue), which is denoted as "current access." We also track variables such as access through a subscription versus an aggregator, and elements like open access, perpetual access, and access through other means (like the library databases provided through the state to all Minnesotans).

And then finally, we have maybe the most familiar assessment category – usage. In addition to how many articles were downloaded, we look at different variables including access coming through our Discovery layer, the number of Interlibrary Loan Requests, and also usage broken down by year of publication. During an early CPBI demonstration, one of our colleagues asked an astute question, and we subsequently have a created measure, called the *Southworth Ratio*, which assesses the trends in article download usage data for an individual journal title.

Types of Filters





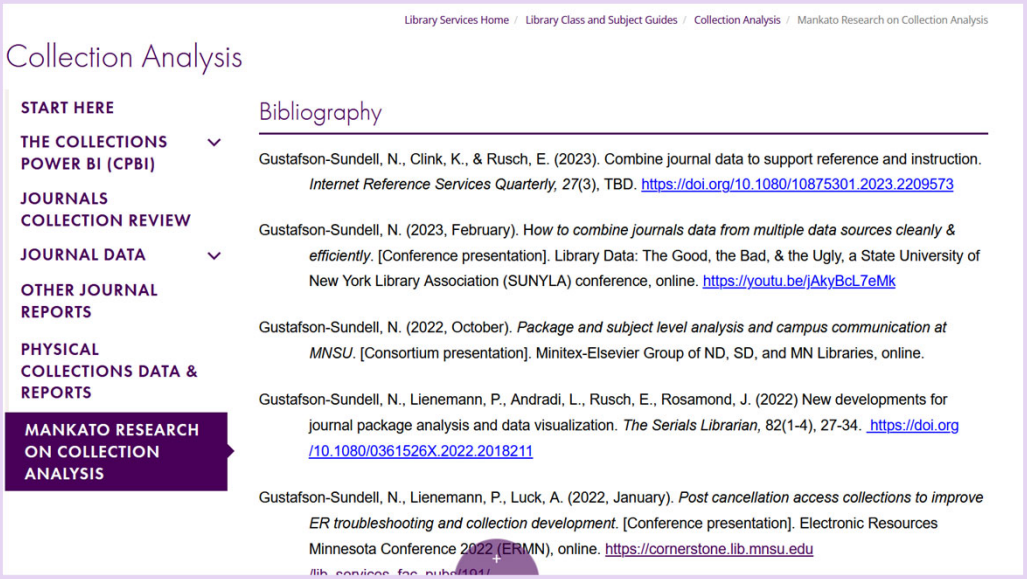
When we get into the interface, you will see there are filters on each page that allow users to customize their collection profiles or journals lists to specific subsets of our journal holdings. The filters are really what gives power to the various reports.

Subject filtering is especially important as it allows subject librarians and professors to understand the journals that serve their disciplines.

Types of Report Filters:

- Subject (Scimago subject categories also Library of Congress)
- Source of Access (Collection, Publisher, Interface, Platform)
- Quality (Scimago Subject Quartile)
- Subscription usage versus aggregator usage.

https://libguides.mnsu.edu/collection-analysis/



I think it's worth trying to jump into the webservice interface during the live presentation. I want to just demonstrate the filters and dynamic nature of some of our reports.

I also want to take a moment to mention that we have a LibGuide with background information about the CPBI as well as a bibliography of other work we've done in this area (https://libguides.mnsu.edu/collection-analysis/).

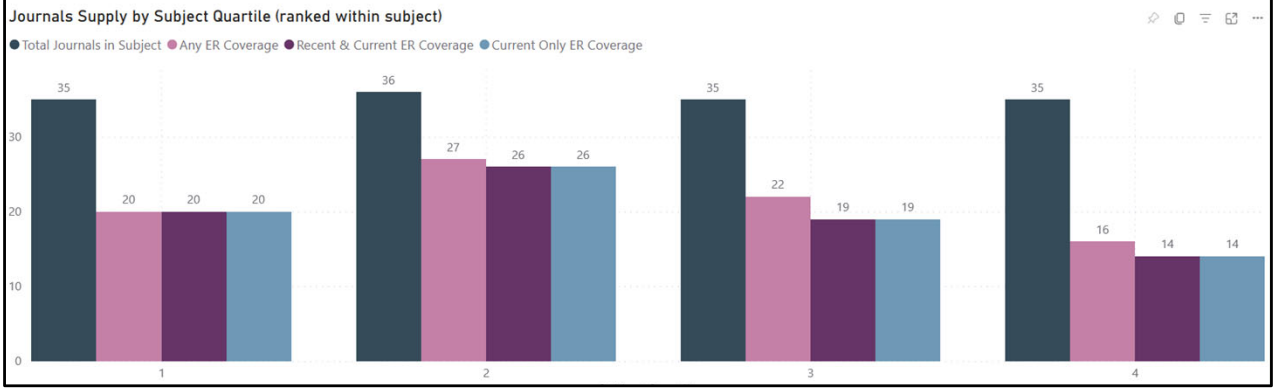
Collection Profile Subject QSU

Subject Quartile	Total Journals in Subject	Any ER Coverage	Recent & Current ER Coverage	Current Only ER Coverage	DISTINCT ER Venues	DISTINCT ER Providers	ALL OA Venues	ALL ELM Venues	DISTINCT ELM Venues	ALL PCA Venues	Article Downloads 13-22	Southworth Ratio	MavScholar Clicked Services 19-22	ILL Requests 19-22	% Comparative Price
1	35	34	34	34	16	10	19	6	2	8	7,305	0.47	457	2	58.30%
2	36	28	28	28	17	12	14	9	3	8	1,437	0.35	155		32.46%
3	35	22	19	19	12	9	14	5	2	5	276	0.70	33	2	9.24%
4	35	16	14	14	10	4	15	7	6		239	0.42	24		
Total	**141**	**100**	**95**	**95**	**29**	**17**	**62**	**27**	**7**	**21**	**9,257**	**0.46**	**669**	**4**	**100.00%**

Let's start with a Collection Profile report and look at one subject. I am the subject librarian for the Department of Biological Sciences and worked a lot with our Soil Scientist this year, so let's filter down to that subject.

Collection Profile Subject QSU

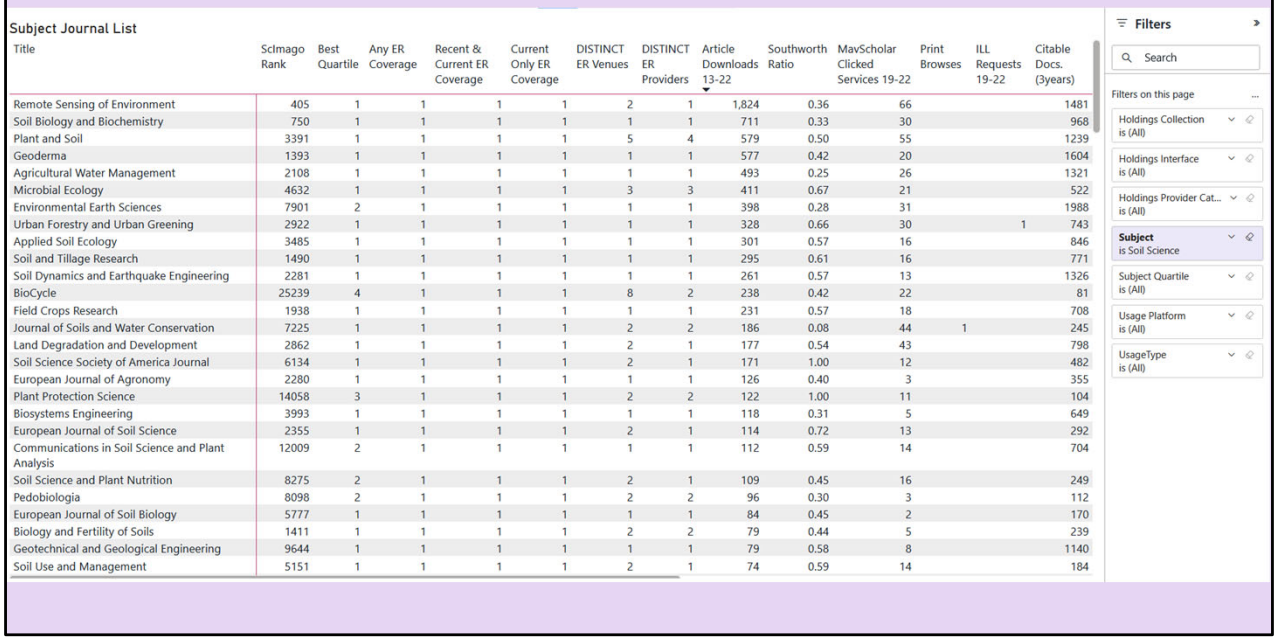
Subject Quartile	Total Journals in Subject	Any ER Coverage	Recent & Current ER Coverage	Current Only ER Coverage	DISTINCT ER Venues	DISTINCT ER Providers	ALL OA Venues	ALL ELM Venues	DISTINCT ELM Venues	ALL PCA Venues	Article Downloads 13-22	Southworth Ratio	MavScholar Clicked Services 19-22	ILL Requests 19-22	% Comparative Price
2	36	27	26	26	16	11	14	9	3	8	1,421	0.34	149		49.99%
1	35	20	20	20	14	9	19	6	2	7	1,901	0.61	206	1	35.79%
3	35	22	19	19	12	9	14	5	2	5	276	0.70	33	2	14.22%
4	35	16	14	14	10	4	15	7	6		239	0.42	24		
Total	**141**	**85**	**79**	**79**	**27**	**16**	**62**	**27**	**7**	**20**	**3,837**	**0.51**	**412**	**3**	**100.00%**



If we needed to cut a big package, we could evaluate what cuts would potentially do down to a subject level.

For this example, I removed one of the major science journal packages (you probably can guess which one), and there are significant decreases in the number of first and second quartile Soil Science journals that we'd be providing access to.

Journal List Subject QSU



Subject Journal List

Title	SCImago Rank	Best Quartile	Any ER Coverage	Recent & Current ER Coverage	Current Only ER Coverage	DISTINCT ER Venues	DISTINCT ER Providers	Article Downloads 13-22	Southworth Ratio	MavScholar Clicked Services 19-22	Print Browses	ILL Requests 19-22	Citable Docs. (3years)
Remote Sensing of Environment	405	1	1	1	1	2	1	1,824	0.36	66			1481
Soil Biology and Biochemistry	750	1	1	1	1	1	1	711	0.33	30			968
Plant and Soil	3391	1	1	1	1	5	4	579	0.50	55			1239
Geoderma	1393	1	1	1	1	1	1	577	0.42	20			1604
Agricultural Water Management	2108	1	1	1	1	1	1	493	0.25	26			1321
Microbial Ecology	4632	1	1	1	1	3	3	411	0.67	21			522
Environmental Earth Sciences	7901	2	1	1	1	1	1	398	0.28	31			1988
Urban Forestry and Urban Greening	2922	1	1	1	1	1	1	328	0.66	30		1	743
Applied Soil Ecology	3485	1	1	1	1	1	1	301	0.57	16			846
Soil and Tillage Research	1490	1	1	1	1	1	1	295	0.61	16			771
Soil Dynamics and Earthquake Engineering	2281	1	1	1	1	1	1	261	0.57	13			1326
BioCycle	25239	4	1	1	1	8	2	238	0.42	22			81
Field Crops Research	1938	1	1	1	1	1	1	231	0.57	18			708
Journal of Soils and Water Conservation	7225	1	1	1	1	2	2	186	0.08	44	1		245
Land Degradation and Development	2862	1	1	1	1	2	1	177	0.54	43			798
Soil Science Society of America Journal	6134	1	1	1	1	2	1	171	1.00	12			482
European Journal of Agronomy	2280	1	1	1	1	1	1	126	0.40	3			355
Plant Protection Science	14058	3	1	1	1	2	2	122	1.00	11			104
Biosystems Engineering	3993	1	1	1	1	1	1	118	0.31	5			649
European Journal of Soil Science	2355	1	1	1	1	2	1	114	0.72	13			292
Communications in Soil Science and Plant Analysis	12009	2	1	1	1	1	1	112	0.59	14			704
Soil Science and Plant Nutrition	8275	2	1	1	1	2	1	109	0.45	16			249
Pedobiologia	8098	2	1	1	1	2	2	96	0.30	3			112
European Journal of Soil Biology	5777	1	1	1	1	1	1	84	0.45	2			170
Biology and Fertility of Soils	1411	1	1	1	1	2	2	79	0.44	5			239
Geotechnical and Geological Engineering	9644	1	1	1	1	1	1	79	0.58	8			1140
Soil Use and Management	5151	1	1	1	1	2	1	74	0.59	14			184

Filters

Search

Filters on this page

Holdings Collection is (All)

Holdings Interface is (All)

Holdings Provider Cat... is (All)

Subject is Soil Science

Subject Quartile is (All)

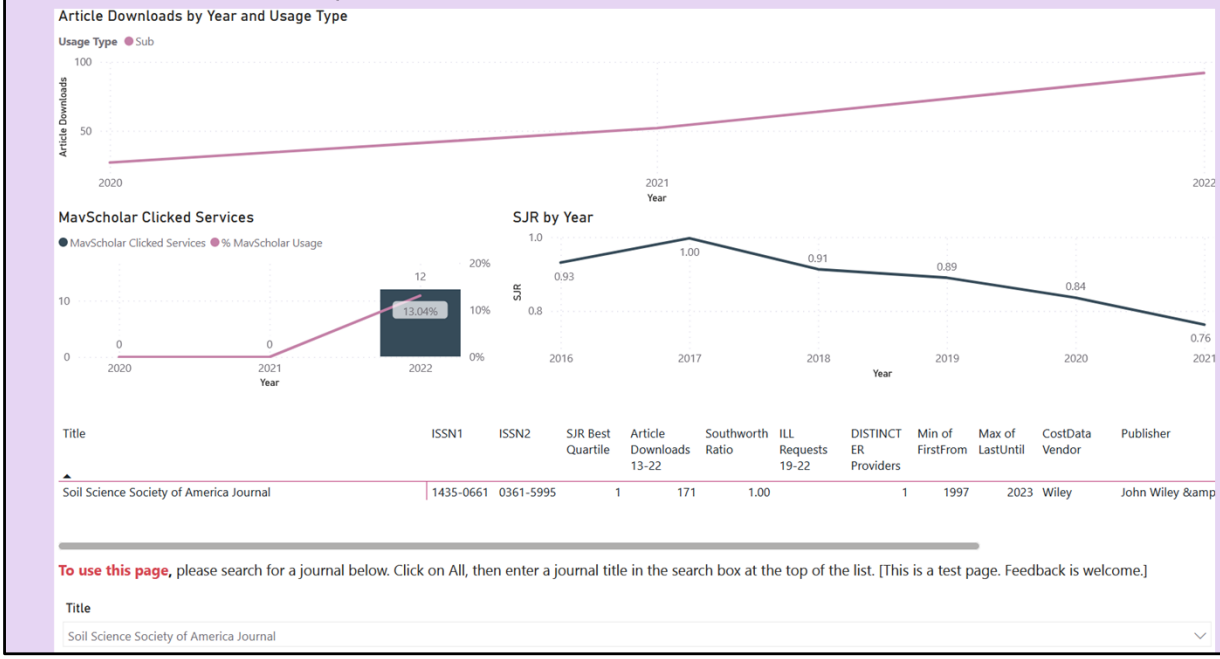
Usage Platform is (All)

UsageType is (All)

This is another type of report: a Journal List (which outputs a list of journals – sometimes we like to keep it simple). Once the report is generated, you can continue to filter the data or sort it.

In this example, the list is Soil Science journals, sorted by article downloads (high to low). You can then look at variables like the Scimago Rank or Southworth Ratio to make further assessments.

Journal Lookup



You might notice, there are quite a few reports available, I just want to look at a couple more here. This Journal Lookup provides a nice dashboard to look at an individual title's statistics.

Journal List Access Changes

Current Access by Year, 1= Yes

Rank	Title	2019	2020	2021	2022
8452	Yantu Lixue/Rock and Soil Mechanics	0	0	0	1
8480	Soil Research	1	0	0	0

And then finally, this is a fun (and useful) report to look at - showing changes in access. I feel it could be used as a departmental personality test. If you're talking to an optimistic department, they'd look at that first one and say, "you know, I've been wanting access to "Rock and Soil Mechanics" for years, and now we have it – you're the best."
On the other hand, a pessimistic soil scientist may accuse you of forsaking them if we highlight that we stopped maintaining access to "Soil Research" back in 2020.

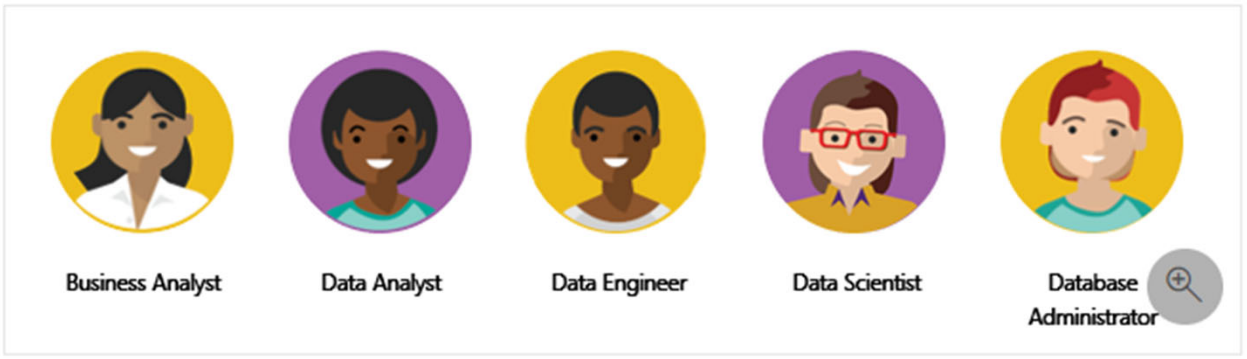
Evan will share some actual use cases in a little while, but next, Nat will cover the design and implementation of the CPBI.

CPBI Implementation

1. Components of Power BI (PBI)
2. Why We Prefer PBI
3. Data Design

Thanks, Pat. In this portion of our presentation, I'll start by describing the components of Microsoft Power BI, or PBI. Second, I'll talk briefly about why we currently prefer PBI to other tools we've previously used. Third, I'll talk about data design. I will try to avoid technical terms throughout – and really, there's only time enough to talk at a very high level.

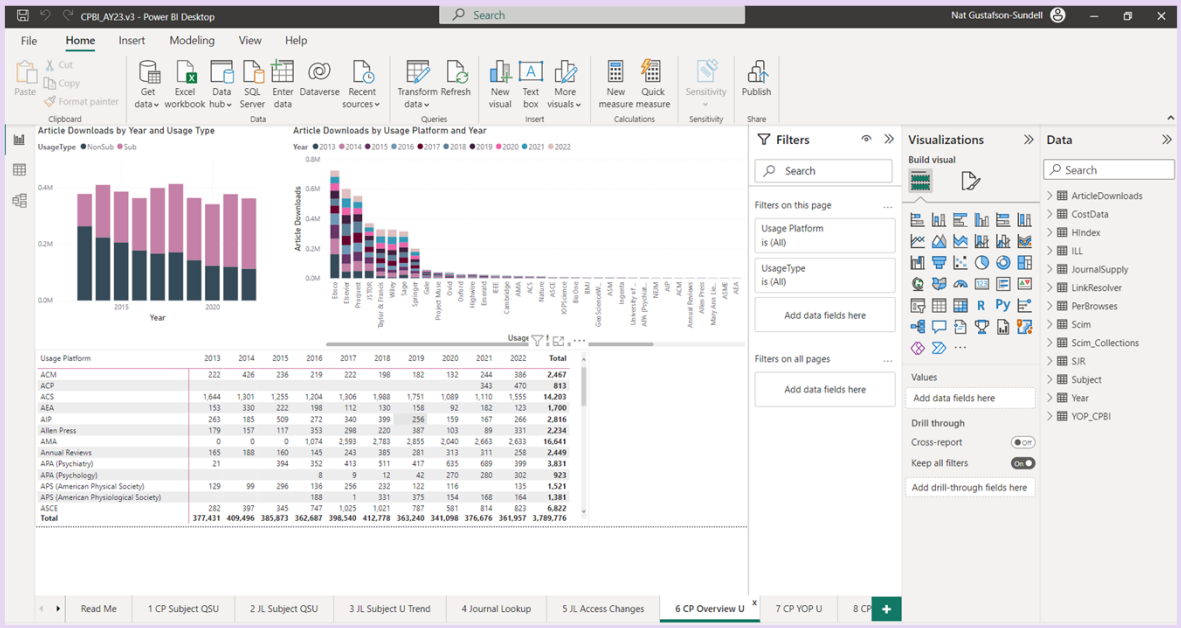
Collections Power BI (CPBI) Implementation: Components of PBI



(From "Roles in Data," Microsoft, Accessed 4/12/2023, https://learn.microsoft.com/en-us/training/modules/data-analytics-microsoft/3-roles)

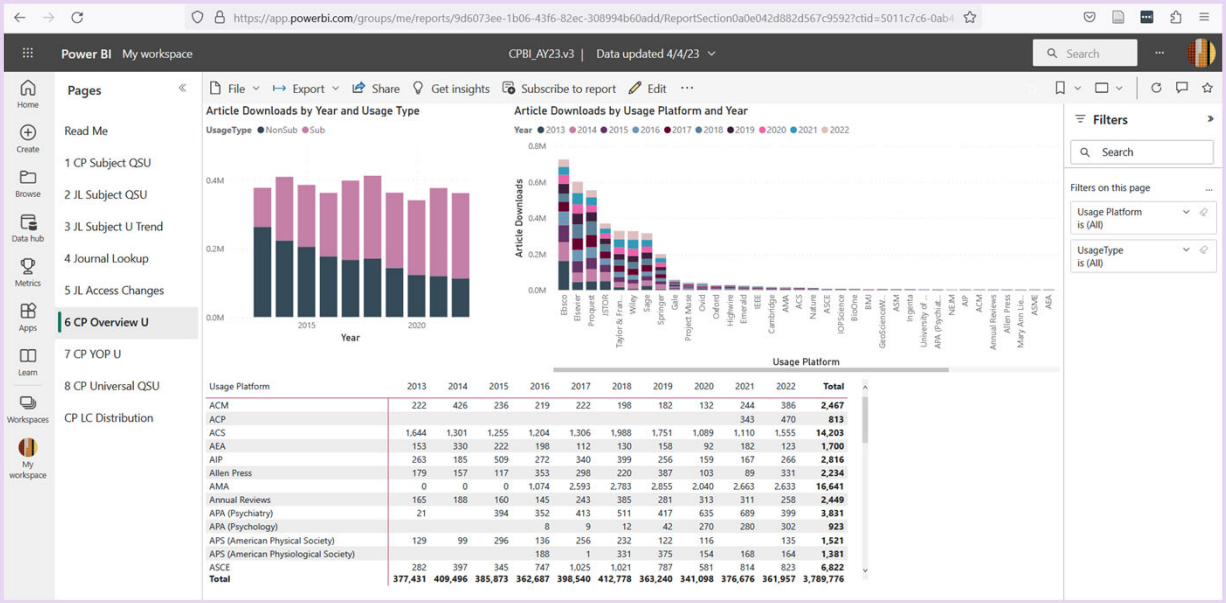
The Microsoft PBI training materials distinguish several roles of users of PBI. For our purposes here, we'll only distinguish two roles: developers and users. Developers produce the reports in PBI, while users consume the reports. Of course, some people could have both roles. The reason it's useful to distinguish developers from users is because there are basically two venues to interact with PBI, both of which are necessary.

Collections Power BI (CPBI) Implementation: Components of PBI



The desktop application is optimized for production …

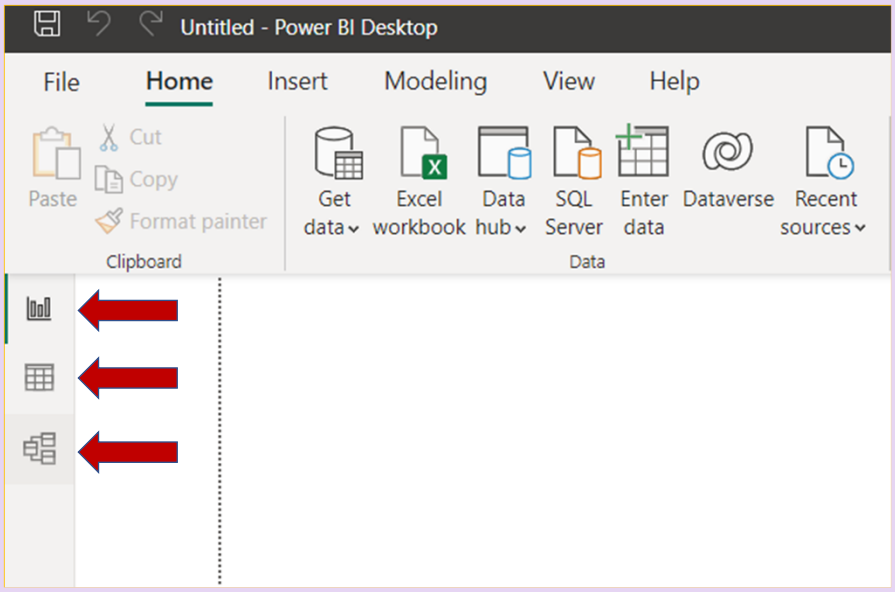
Collections Power BI (CPBI) Implementation: Components of PBI



Usage Platform	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
ACM	222	426	236	219	222	198	182	132	244	386	**2,467**
ACP									343	470	**813**
ACS	1,644	1,301	1,255	1,204	1,306	1,988	1,751	1,089	1,110	1,555	**14,203**
AEA	153	330	222	198	112	130	158	92	182	123	**1,700**
AIP	263	185	509	272	340	399	256	159	167	266	**2,816**
Allen Press	179	157	117	353	298	220	387	103	89	331	**2,234**
AMA	0	0	0	1,074	2,593	2,783	2,855	2,040	2,663	2,633	**16,641**
Annual Reviews	165	188	160	145	243	385	281	313	311	258	**2,449**
APA (Psychiatry)	21		394	352	413	511	417	635	689	399	**3,831**
APA (Psychology)				8	9	12	42	270	280	302	**923**
APS (American Physical Society)	129	99	296	136	256	232	122	116		135	**1,521**
APS (American Physiological Society)				188	1	331	375	154	168	164	**1,381**
ASCE	282	397	345	747	1,025	1,021	787	581	814	823	**6,822**
Total	**377,431**	**409,496**	**385,873**	**362,687**	**398,540**	**412,778**	**363,240**	**341,098**	**376,676**	**361,957**	**3,789,776**

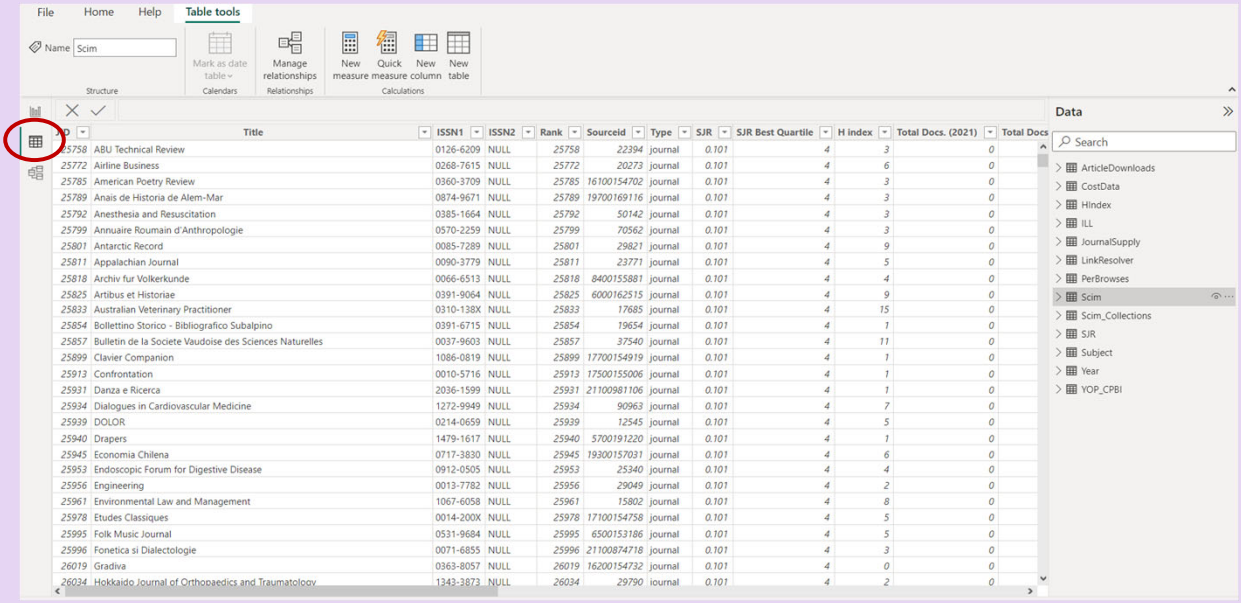
… while the web service is optimized for report consumption. (There's also a mobile app, but I don't think it's very useful.)

Collections Power BI (CPBI) Implementation: Components of PBI



There are three views within the desktop app, each of which provides different functionality.

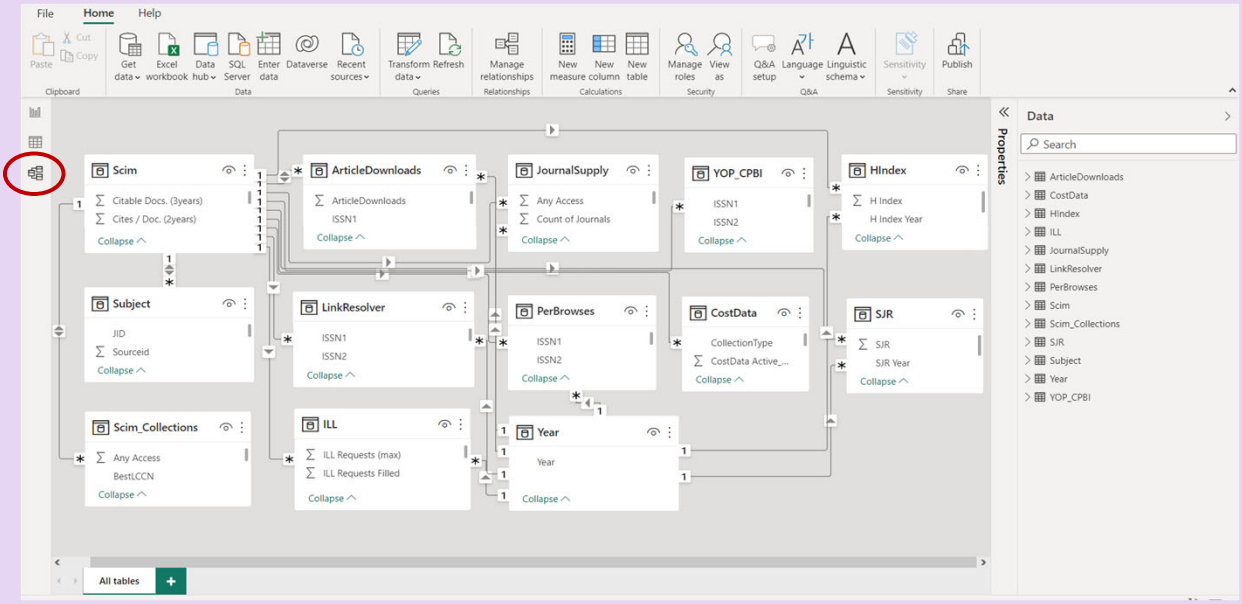
Collections Power BI (CPBI) Implementation: Components of PBI



YOP	Title	ISSN1	ISSN2	Rank	Sourceid	Type	SJR	SJR Best Quartile	H index	Total Docs. (2021)	Total Docs
25758	ABU Technical Review	0126-6209	NULL	25758	22394	journal	0.101	4	3	0	
25772	Airline Business	0268-7615	NULL	25772	20273	journal	0.101	4	6	0	
25785	American Poetry Review	0360-3709	NULL	25785	16100154702	journal	0.101	4	3	0	
25789	Anais de Historia de Alem-Mar	0874-9671	NULL	25789	19700169116	journal	0.101	4	3	0	
25792	Anesthesia and Resuscitation	0385-1664	NULL	25792	50142	journal	0.101	4	3	0	
25799	Annuaire Roumain d'Anthropologie	0570-2259	NULL	25799	70562	journal	0.101	4	3	0	
25801	Antarctic Record	0085-7289	NULL	25801	29821	journal	0.101	4	9	0	
25811	Appalachian Journal	0090-3779	NULL	25811	23771	journal	0.101	4	5	0	
25818	Archiv fur Volkerkunde	0066-6513	NULL	25818	8400155881	journal	0.101	4	4	0	
25825	Artibus et Historiae	0391-9064	NULL	25825	6000162515	journal	0.101	4	9	0	
25833	Australian Veterinary Practitioner	0310-138X	NULL	25833	17685	journal	0.101	4	15	0	
25854	Bollettino Storico - Bibliografico Subalpino	0391-6715	NULL	25854	19654	journal	0.101	4	1	0	
25857	Bulletin de la Societe Vaudoise des Sciences Naturelles	0037-9603	NULL	25857	37540	journal	0.101	4	11	0	
25899	Clavier Companion	1086-0819	NULL	25899	17700154919	journal	0.101	4	1	0	
25913	Confrontation	0010-5716	NULL	25913	17500155006	journal	0.101	4	1	0	
25931	Danza e Ricerca	2036-1599	NULL	25931	21100981106	journal	0.101	4	1	0	
25934	Dialogues in Cardiovascular Medicine	1272-9949	NULL	25934	90963	journal	0.101	4	7	0	
25939	DOLOR	0214-0659	NULL	25939	12545	journal	0.101	4	5	0	
25940	Drapers	1479-1617	NULL	25940	5700191220	journal	0.101	4	1	0	
25945	Economia Chilena	0717-3830	NULL	25945	19300157031	journal	0.101	4	6	0	
25953	Endoscopic Forum for Digestive Disease	0912-0505	NULL	25953	25340	journal	0.101	4	4	0	
25956	Engineering	0013-7782	NULL	25956	29049	journal	0.101	4	2	0	
25961	Environmental Law and Management	1067-6058	NULL	25961	15802	journal	0.101	4	8	0	
25978	Etudes Classiques	0014-200X	NULL	25978	17100154758	journal	0.101	4	5	0	
25995	Folk Music Journal	0531-9684	NULL	25995	6500153186	journal	0.101	4	5	0	
25996	Fonetica si Dialectologie	0071-6855	NULL	25996	21100874718	journal	0.101	4	3	0	
26019	Gradiva	0363-8057	NULL	26019	16200154732	journal	0.101	4	0	0	
26034	Hokkaido Journal of Orthopaedics and Traumatology	1343-3873	NULL	26034	29790	journal	0.101	4	2	0	

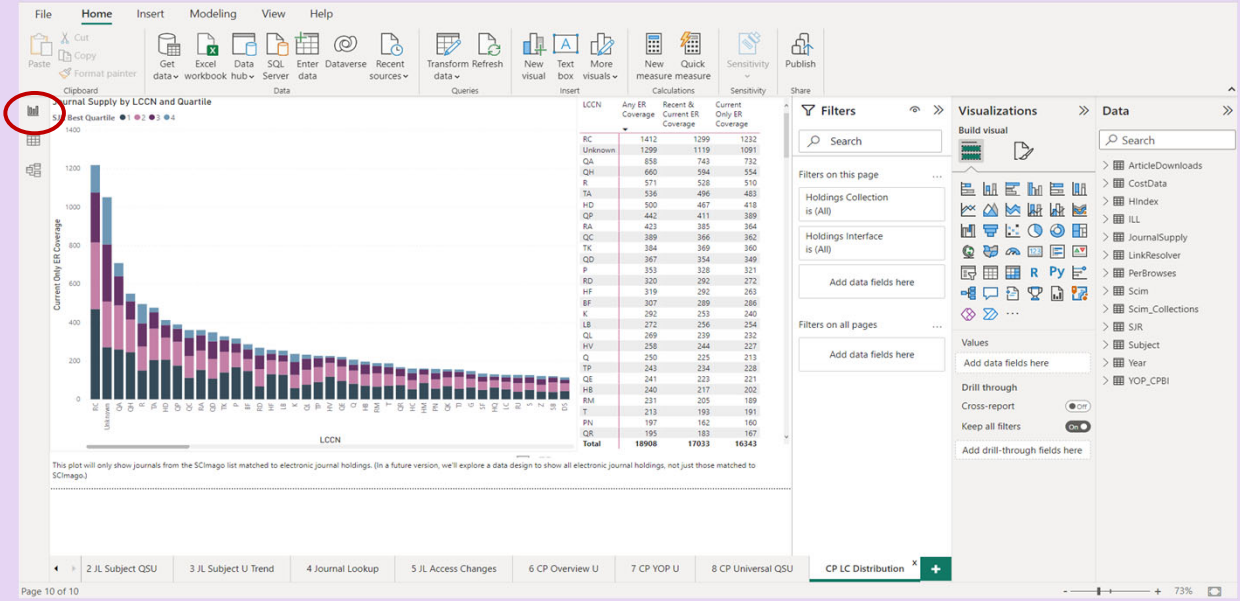
The Data view can be used to manipulate data and to create new measures. For example, given usage and cost, one could create cost per usage measures in the Data view. It's best to create measures in PBI because they will update with the filter context.

Collections Power BI (CPBI) Implementation: Components of PBI



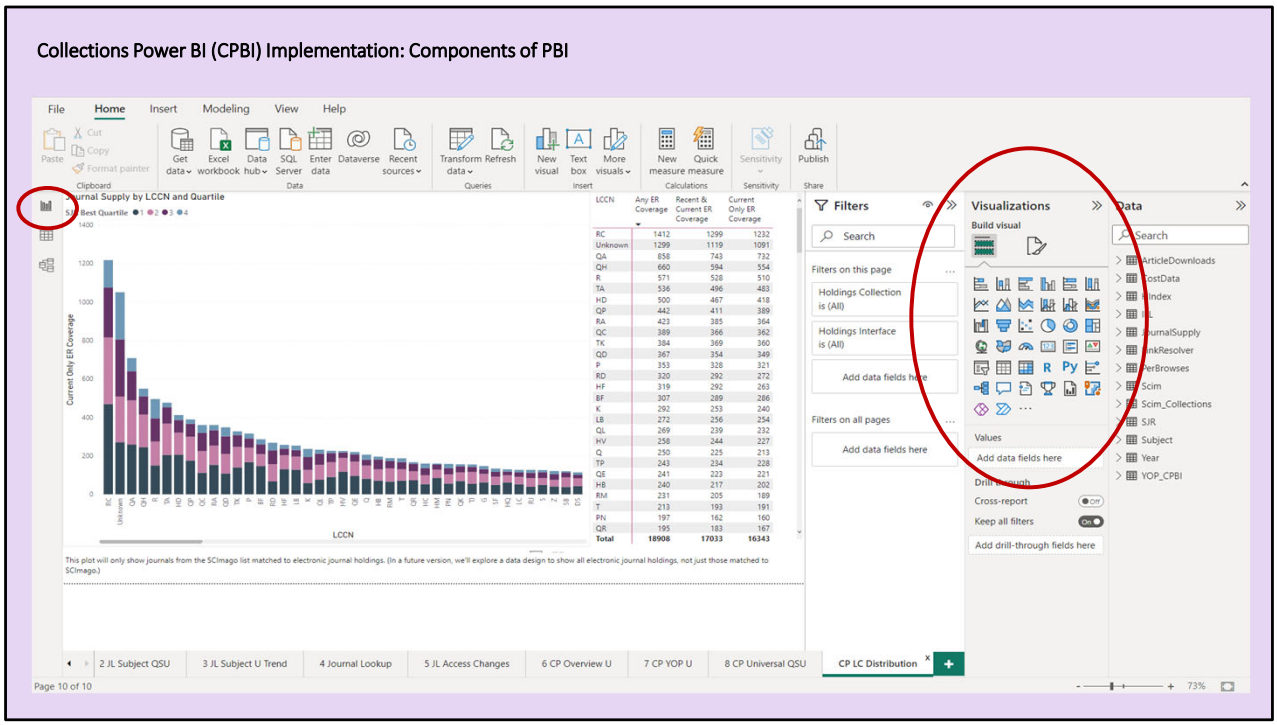
The Model view can be used to create and revise data relationships.

Collections Power BI (CPBI) Implementation: Components of PBI



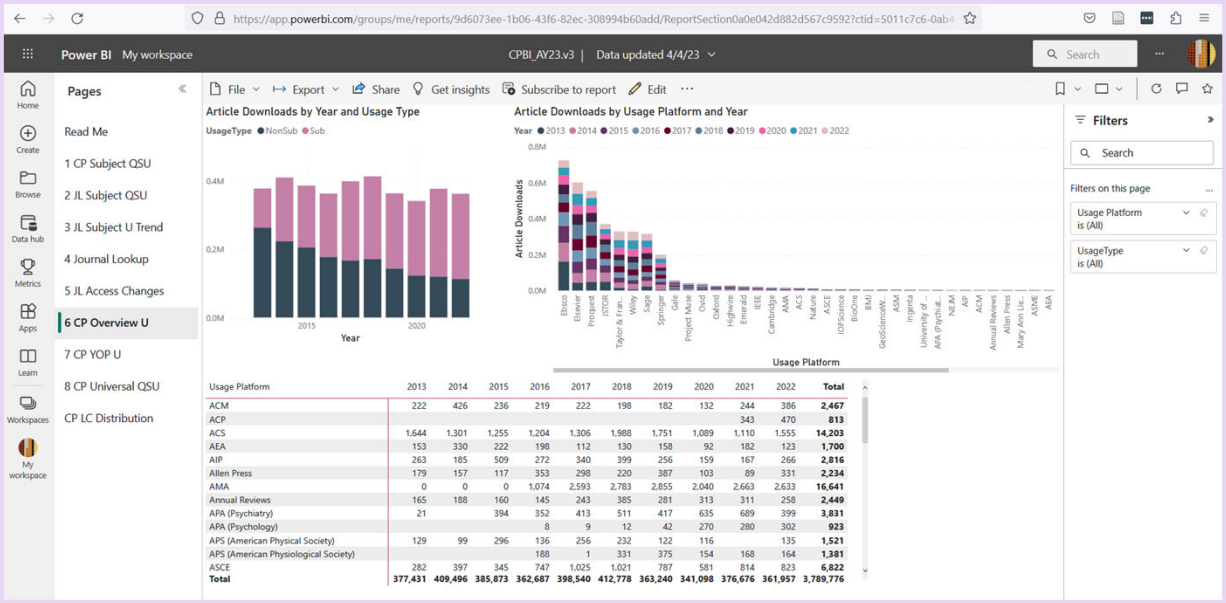
The Report view can be used to create data visualizations.

Collections Power BI (CPBI) Implementation: Components of PBI



Novice users will probably focus on the Report view at first, playing with different data viz options and properties. I've seen some people use PBI with a very simple data design, just one or two tables, although I think the power in PBI comes from the ability to combine many tables in the Model view and to create measures in the Data view.

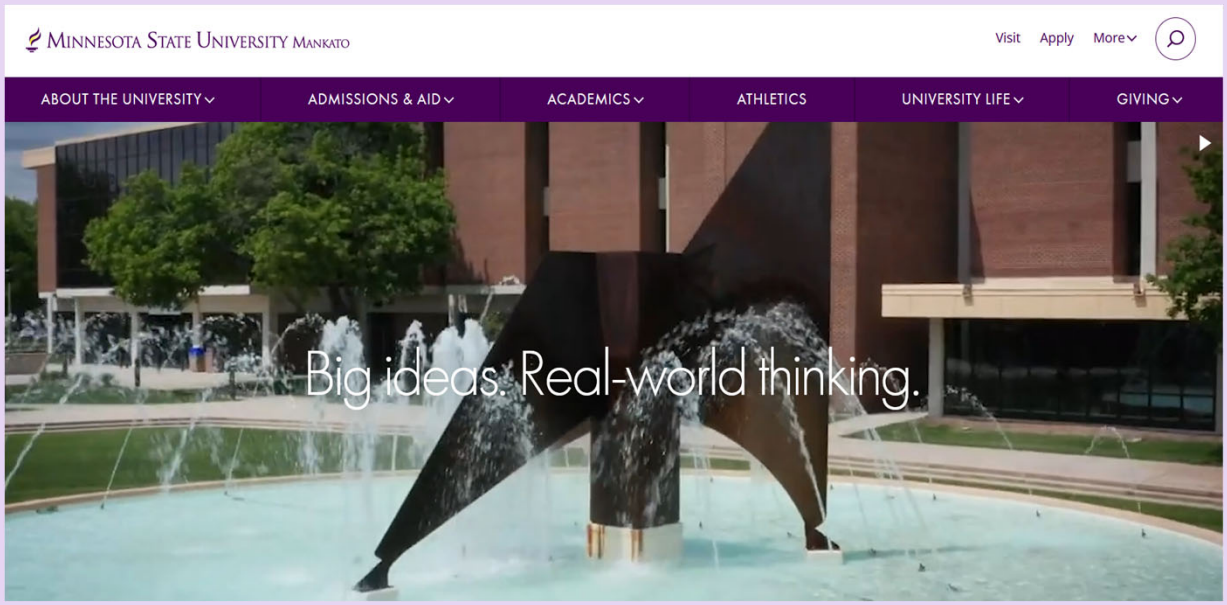
Collections Power BI (CPBI) Implementation: Components of PBI



Usage Platform	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
ACM	222	426	236	219	222	198	182	132	244	386	**2,467**
ACP									343	470	**813**
ACS	1,644	1,301	1,255	1,204	1,306	1,988	1,751	1,089	1,110	1,555	**14,203**
AEA	153	330	222	198	112	130	158	92	182	123	**1,700**
AIP	263	185	509	272	340	399	256	159	167	266	**2,816**
Allen Press	179	157	117	353	298	220	387	103	89	331	**2,234**
AMA	0	0	0	1,074	2,593	2,783	2,855	2,040	2,663	2,633	**16,641**
Annual Reviews	165	188	160	145	243	385	281	313	311	258	**2,449**
APA (Psychiatry)	21		394	352	413	511	417	635	689	399	**3,831**
APA (Psychology)				8	9	12	42	270	280	302	**923**
APS (American Physical Society)	129	99	296	136	256	232	122	116		135	**1,521**
APS (American Physiological Society)				188	1	331	375	154	168	164	**1,381**
ASCE	282	397	345	747	1,025	1,021	787	581	814	823	**6,822**
Total	**377,431**	**409,496**	**385,873**	**362,687**	**398,540**	**412,778**	**363,240**	**341,098**	**376,676**	**361,957**	**3,789,776**

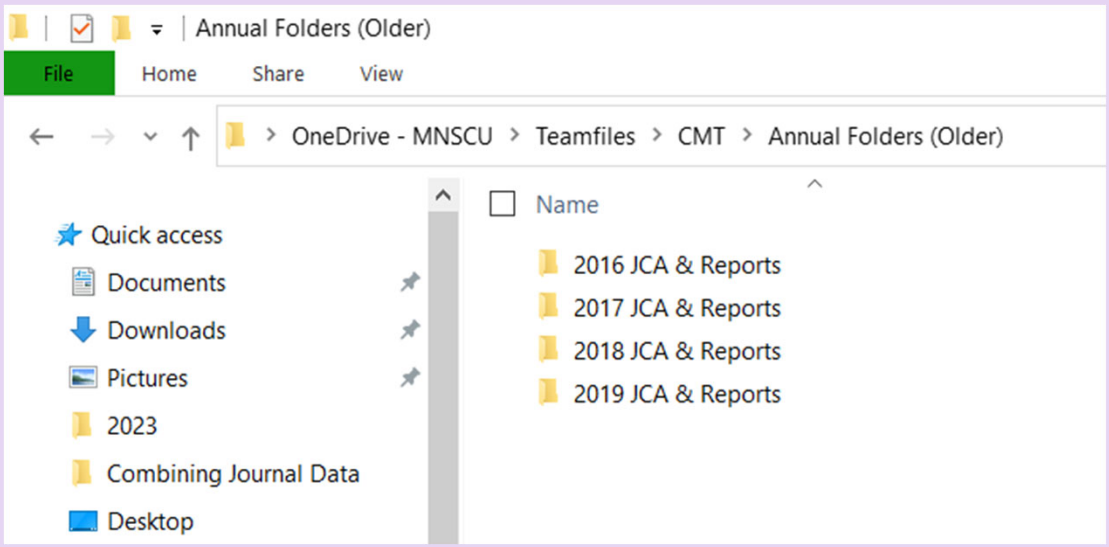
The web service is a venue for users to interact with reports. Of course, the web service can be accessed from any device connected to the web, although it's best to use something bigger than a phone. Compared to the desktop app, the web service interface is simplified. The focus is on the report elements, such as the data viz and filters.

Collections Power BI (CPBI) Implementation: Why We Prefer PBI



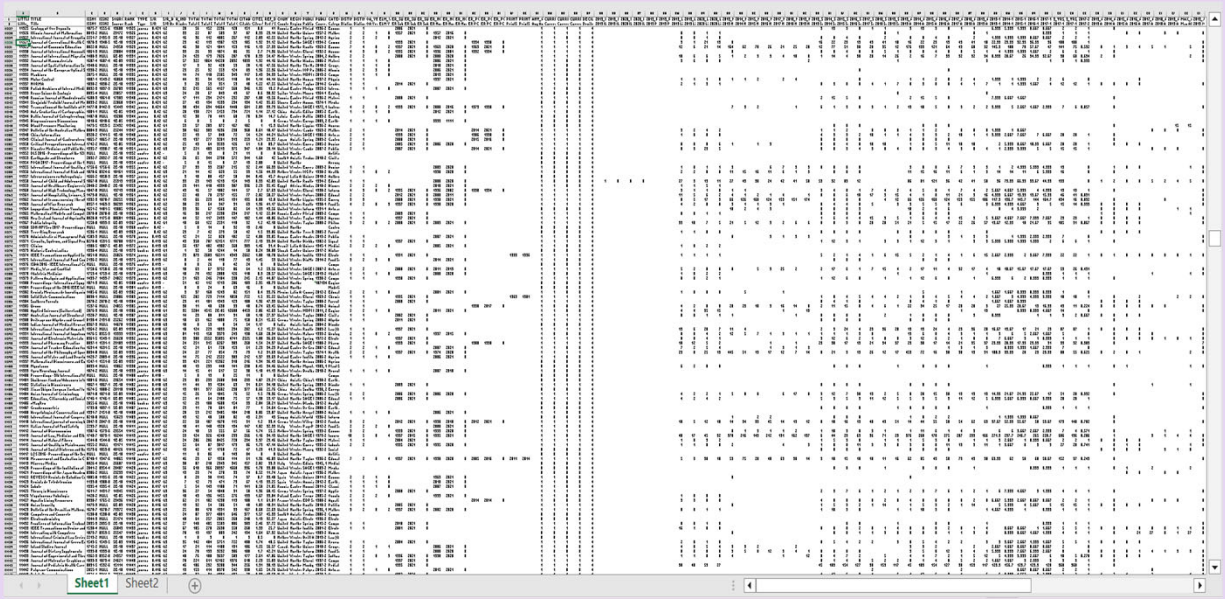
At MNSU, we prefer PBI for many reasons. I'll mention just a couple here, but first, let me try to explain our priorities.

Collections Power BI (CPBI) Implementation: Why We Prefer PBI



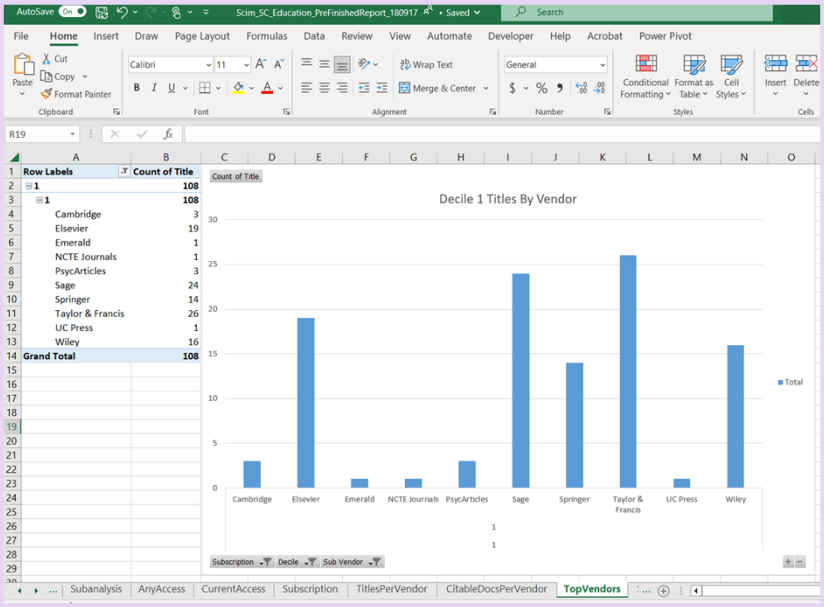
We've been iteratively developing reports over many years. Our earliest priority was to increase the efficiency of our processes, so that we could produce reports at lower cost. We evolved methods to decrease the amount of time required to combine data. As a by-product, we steadily increased the information yield of our reports. It cost us less and less time to produce more and more information, so we started packing more and more data into our reports.

Collections Power BI (CPBI) Implementation: Why We Prefer PBI



We created massive tables with well over a hundred variables derived from a dozen or more data sources.

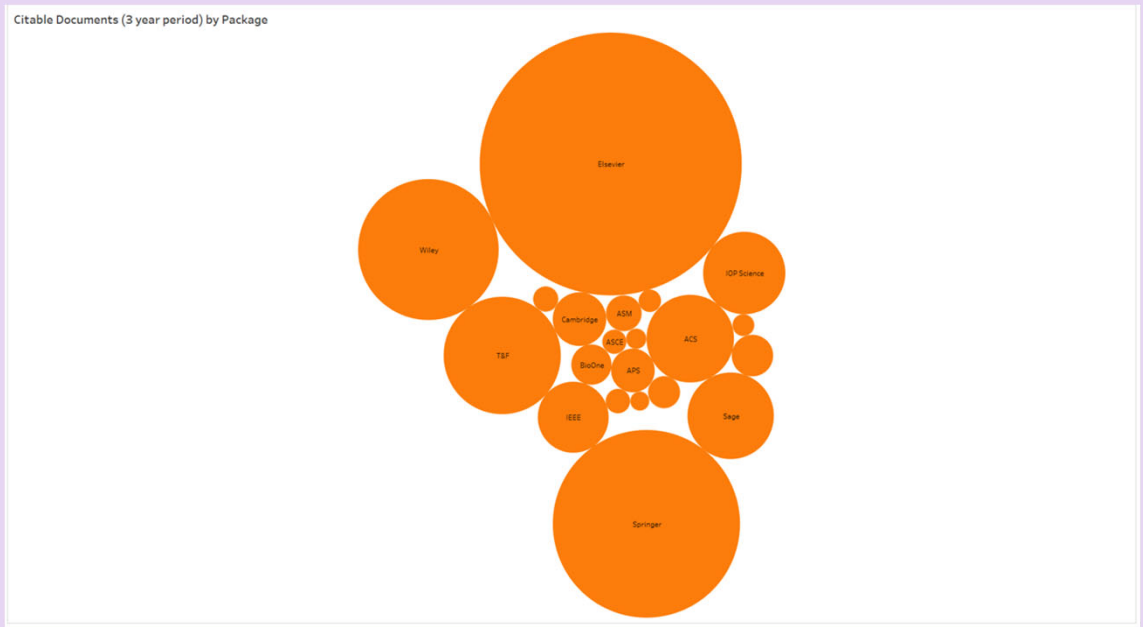
Collections Power BI (CPBI) Implementation: Why We Prefer PBI



Liaison Journal Collection Analysis (LJCA) report, for the subject area Education, AY19

We started adding data viz to draw attention to important information in the reports, first in Excel…

Collections Power BI (CPBI) Implementation: Why We Prefer PBI

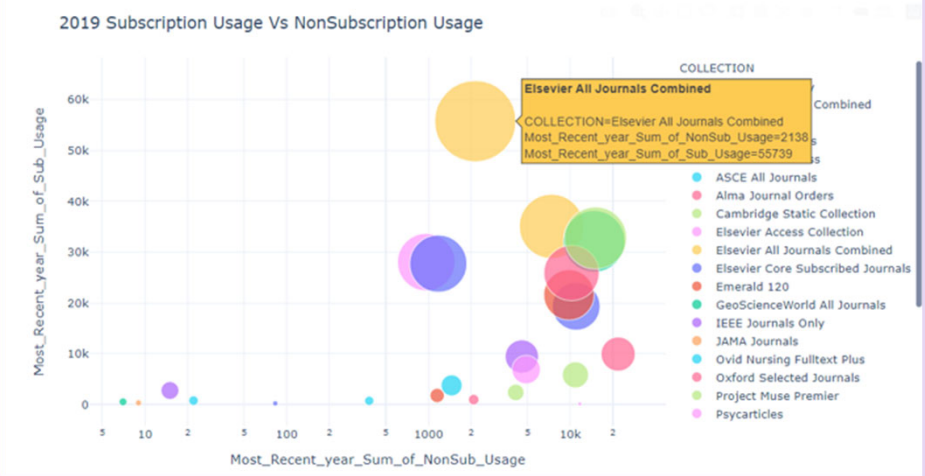


…then in Tableau.

Collections Power BI (CPBI) Implementation: Why We Prefer PBI

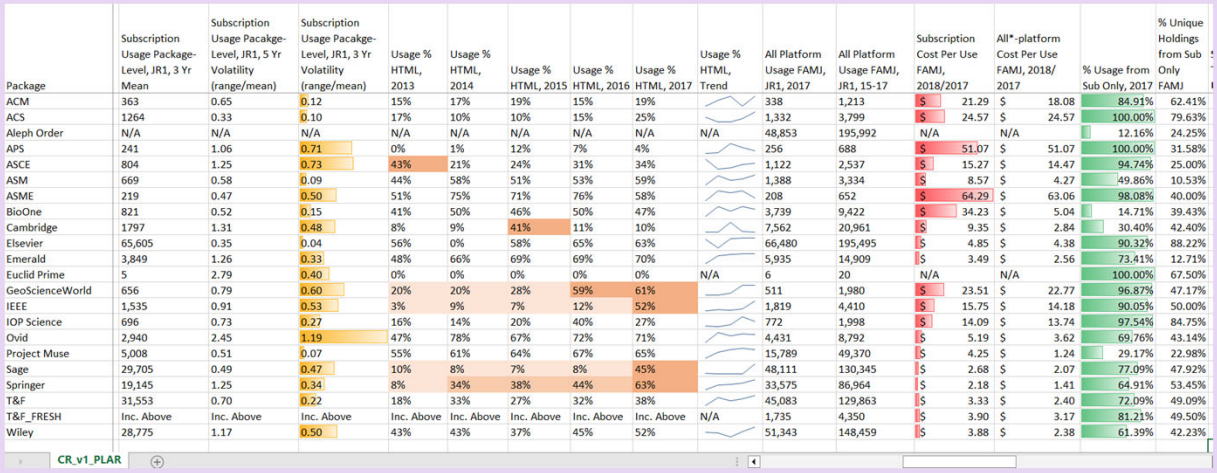
```
import plotly.express as px

fig = px.scatter(PackSubNonsubUsage, x= "Most_Recent_year_Sum_of_NonSub_Usage", y="Most_Recent_year_Sum_of_Sub_Usage",
                 size= "Most_Recent_year_Sum_of_Sub_Usage", color ="COLLECTION", hover_name = "COLLECTION", log_x = True,
                  size_max = 60)
fig.update_layout(template="plotly_white", title="{} Subscription Usage Vs NonSubscription Usage".format(yearHeading1))
fig.show()
```



Then we developed Python programs to automate the production of reports with dozens of data visualizations.

Collections Power BI (CPBI) Implementation: Why We Prefer PBI

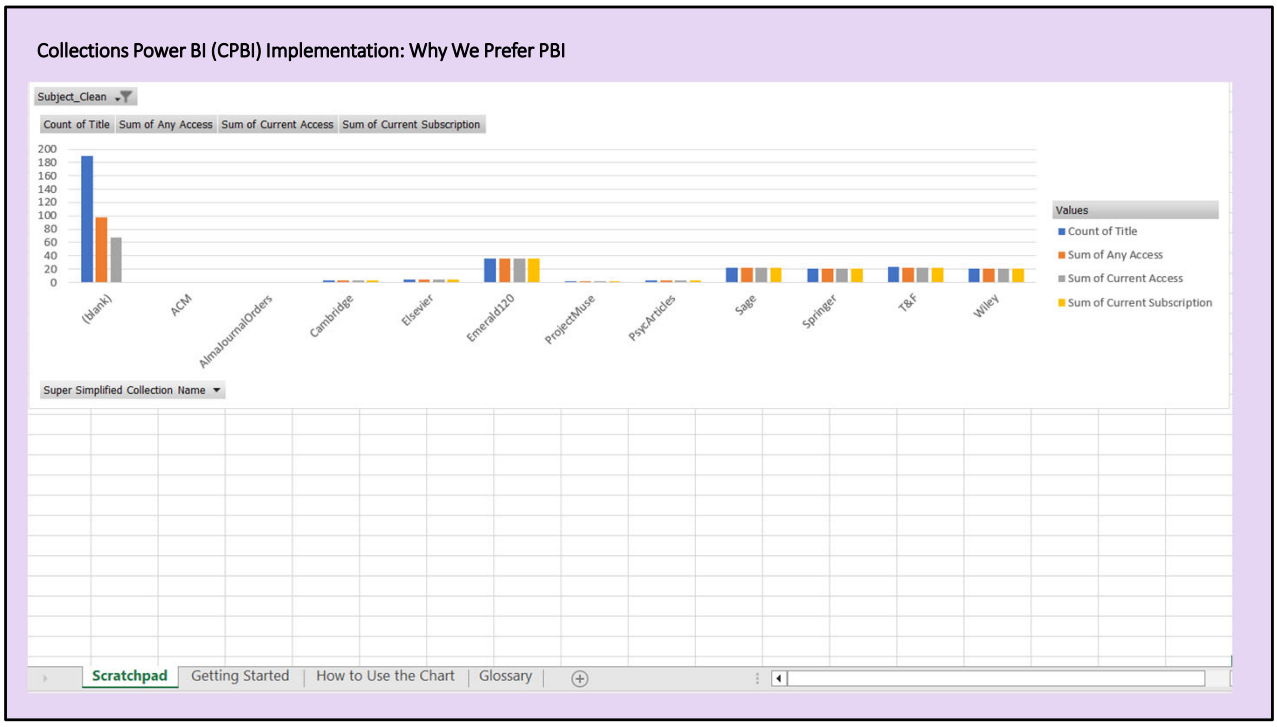


Package	Subscription Usage Package-Level, JR1, 3 Yr Mean	Subscription Usage Pacakge-Level, JR1, 5 Yr Volatility (range/mean)	Subscription Usage Pacakge-Level, JR1, 3 Yr Volatility (range/mean)	Usage % HTML, 2013	Usage % HTML, 2014	Usage % HTML, 2015	Usage % HTML, 2016	Usage % HTML, 2017	Usage % HTML, Trend	All Platform Usage FAMJ, JR1, 2017	All Platform Usage FAMJ, JR1, 15-17	Subscription Cost Per Use FAMJ, 2018/2017	All*-platform Cost Per Use FAMJ, 2018/2017	% Usage from Sub Only, 2017	% Unique Holdings from Sub Only FAMJ
ACM	363	0.65	0.12	15%	17%	19%	15%	19%		338	1,213	$ 21.29	$ 18.08	84.91%	62.41%
ACS	1264	0.33	0.10	17%	10%	10%	15%	25%		1,332	3,799	$ 24.57	$ 24.57	100.00%	79.63%
Aleph Order	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	48,853	195,992	N/A	N/A	12.16%	24.25%
APS	241	1.06	0.71	0%	1%	12%	7%	4%		256	688	$ 51.07	$ 51.07	100.00%	31.58%
ASCE	804	1.25	0.73	43%	21%	24%	31%	34%		1,122	2,537	$ 15.27	$ 14.47	94.74%	25.00%
ASM	669	0.58	0.09	44%	58%	51%	53%	59%		1,388	3,334	$ 8.57	$ 4.27	49.86%	10.53%
ASME	219	0.47	0.50	51%	75%	71%	76%	58%		208	652	$ 64.29	$ 63.06	98.08%	40.00%
BioOne	821	0.52	0.15	41%	50%	46%	50%	47%		3,739	9,422	$ 34.23	$ 5.04	14.71%	39.43%
Cambridge	1797	1.31	0.48	8%	9%	41%	11%	10%		7,562	20,961	$ 9.35	$ 2.84	30.40%	42.40%
Elsevier	65,605	0.35	0.04	56%	0%	58%	65%	63%		66,480	195,495	$ 4.85	$ 4.38	90.32%	88.22%
Emerald	3,849	1.26	0.33	48%	66%	69%	69%	70%		5,935	14,909	$ 3.49	$ 2.56	73.41%	12.71%
Euclid Prime	5	2.79	0.40	0%	0%	0%	0%	0%	N/A	6	20	N/A	N/A	100.00%	67.50%
GeoScienceWorld	656	0.79	0.60	20%	20%	28%	59%	61%		511	1,980	$ 23.51	$ 22.77	96.87%	47.17%
IEEE	1,535	0.91	0.53	3%	9%	7%	12%	52%		1,819	4,410	$ 15.75	$ 14.18	90.05%	50.00%
IOP Science	696	0.73	0.27	16%	14%	20%	40%	27%		772	1,998	$ 14.09	$ 13.74	97.54%	84.75%
Ovid	2,940	2.45	1.19	47%	78%	67%	72%	71%		4,431	8,792	$ 5.19	$ 3.62	69.76%	43.14%
Project Muse	5,008	0.51	0.07	55%	61%	64%	67%	65%		15,789	49,370	$ 4.25	$ 1.24	29.17%	22.98%
Sage	29,705	0.49	0.47	10%	8%	7%	8%	45%		48,111	130,345	$ 2.68	$ 2.07	77.09%	47.92%
Springer	19,145	1.25	0.34	8%	34%	38%	44%	63%		33,575	86,964	$ 2.18	$ 1.41	64.91%	53.45%
T&F	31,553	0.70	0.22	18%	33%	27%	32%	38%		45,083	129,863	$ 3.33	$ 2.40	72.09%	49.09%
T&F_FRESH	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	N/A	1,735	4,350	$ 3.90	$ 3.17	81.21%	49.50%
Wiley	28,775	1.17	0.50	43%	43%	37%	45%	52%		51,343	148,459	$ 3.88	$ 2.38	61.39%	42.23%

CR_v1_PLAR

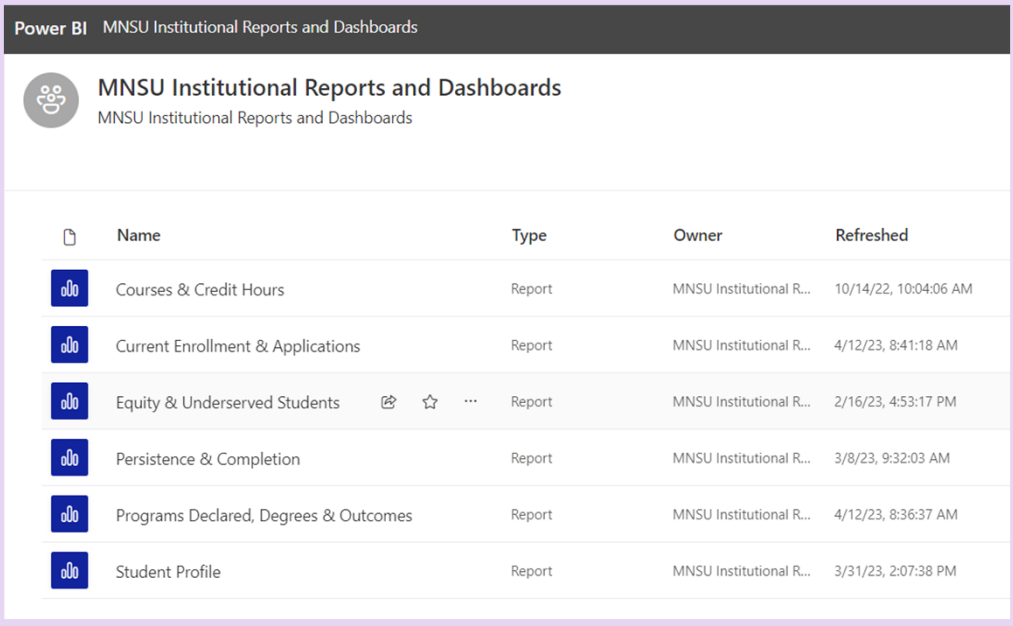
Package Level Analysis Report (PLAR), AY19

We've derived much value from the reports we've produced. We've completed numerous collection development projects at reduced cost and the reports have helped us through several program accreditation reviews, most often with credit to the library, but in spite of these successes, we realized a basic problem. We wanted to use our reports to communicate across campus, but our reports were too big and too difficult for many users to understand. (It was a surprise to me, but I learned that some people don't like spreadsheets as much as I do.)



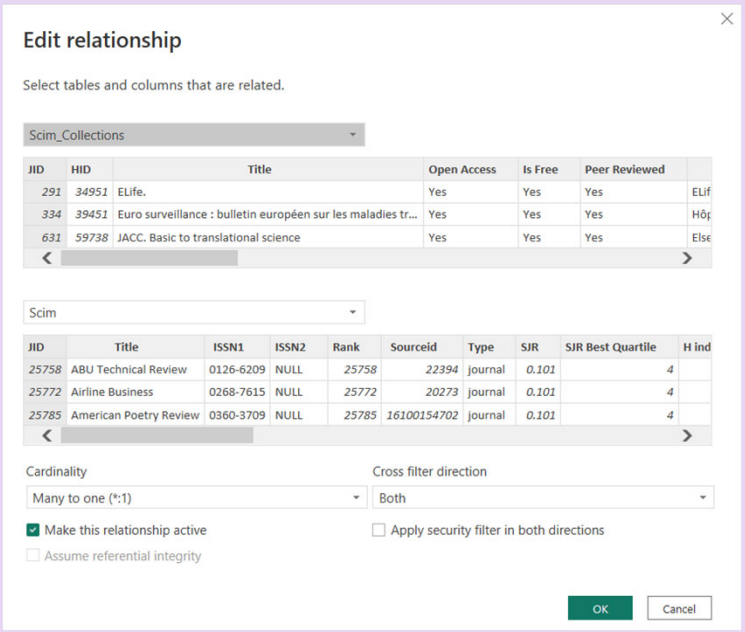
As an experiment, in AY21, we developed an interactive tool we called the Subject Analysis scratchpad, using Excel. Excel is ubiquitous, fairly easy to use, and the files are portable. The scratchpad offered a single chart as an interface, but the variables pictured in the chart could be changed and filtered. We offered a workshop to other librarians to get their feedback. They were very attracted to the idea of a tool they could use directly and they valued the ability to slice data by subject, among other options, but the interface was still too difficult for some and the Mac users had technical problems.

Collections Power BI (CPBI) Implementation: Why We Prefer PBI



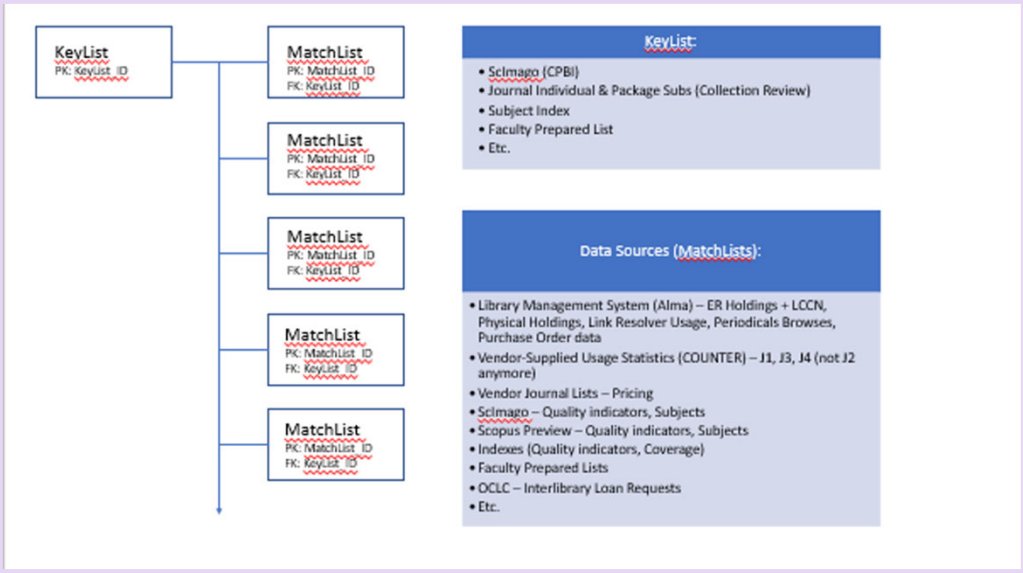
Our campus uses PBI for Institutional Research data. University administrators, department chairs, and others use PBI to extract information about enrollments, completion, and so on. I realized PBI was ideal for our next experiment. In Excel, users might get distracted or intimidated by the Excel interface. In PBI, the interface is much cleaner. Although PBI might still be too difficult for some, it offers a fairly intuitive web service interface, accessible to pretty much anyone on campus regardless of the brand of device they're using.

Collections Power BI (CPBI) Implementation: Why We Prefer PBI



In addition to providing advantages for users, PBI provides advantages for developers. I now spend less time processing data to produce data viz, because PBI allows me to take a completely different approach to data design.

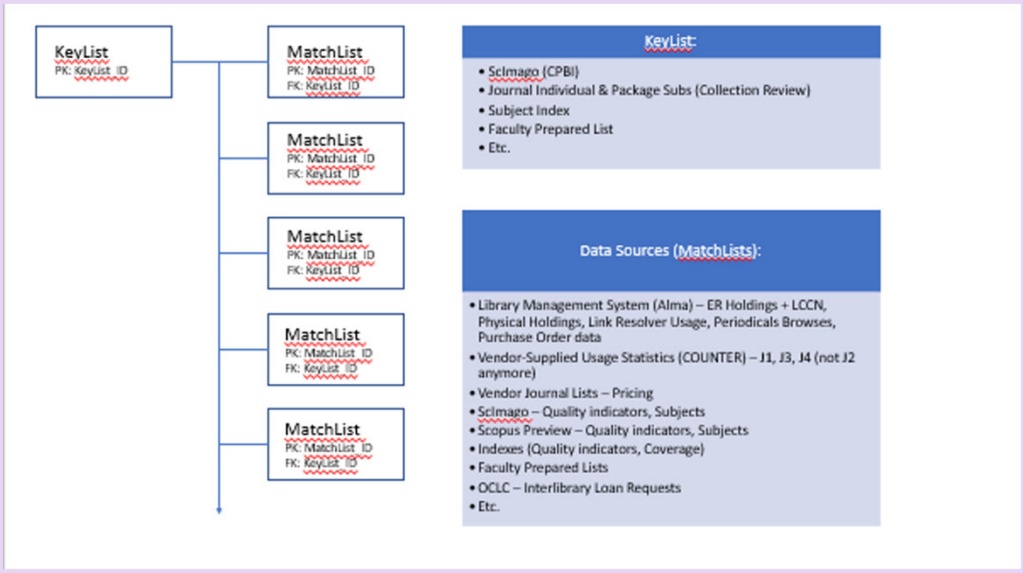
Collections Power BI (CPBI) Implementation: Data Design



link.mnsu.edu/datavideo

Unfortunately, I don't have time to describe our data preparation in any detail. For a how-to demonstration, please follow the link on the bottom of the screen.

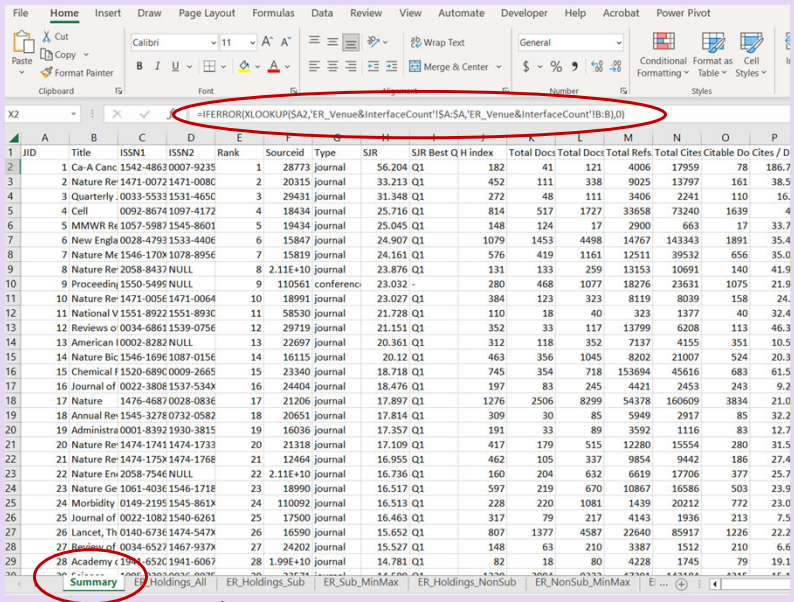
Collections Power BI (CPBI) Implementation: Data Design



link.mnsu.edu/datavideo

The basic idea is that we create a matchpoint between one table, which we call a keylist, to any number of other tables, which we call matchlists. We can combine data from all of these tables because they are related through the keylist.

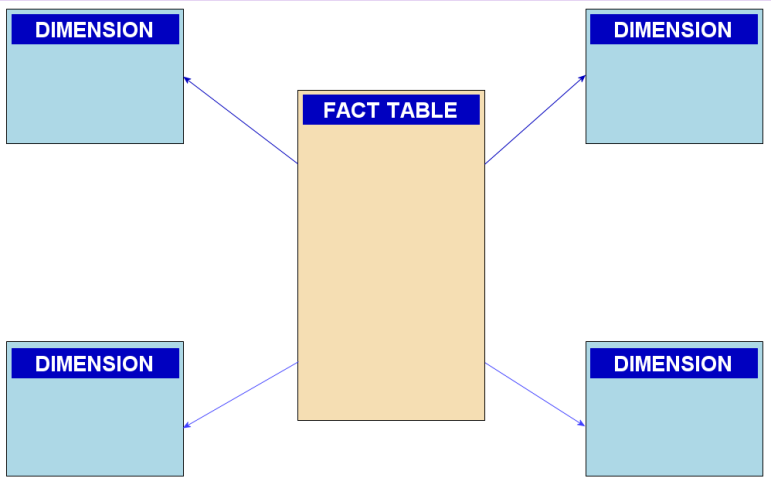
Collections Power BI (CPBI) Implementation: Data Design



link.mnsu.edu/datavideo

In the past, after keying a group of tables to each other, we'd take a subsequent step to create a single combined table. We'd most often use Xlookups in Excel to pull data from the matchlists into the summary table based on the keylist. In PBI, though, we don't need to create a combined table. In fact, it would be disadvantageous to do so. Instead, we can import the tables into PBI and relate them in the Model view of the desktop app.

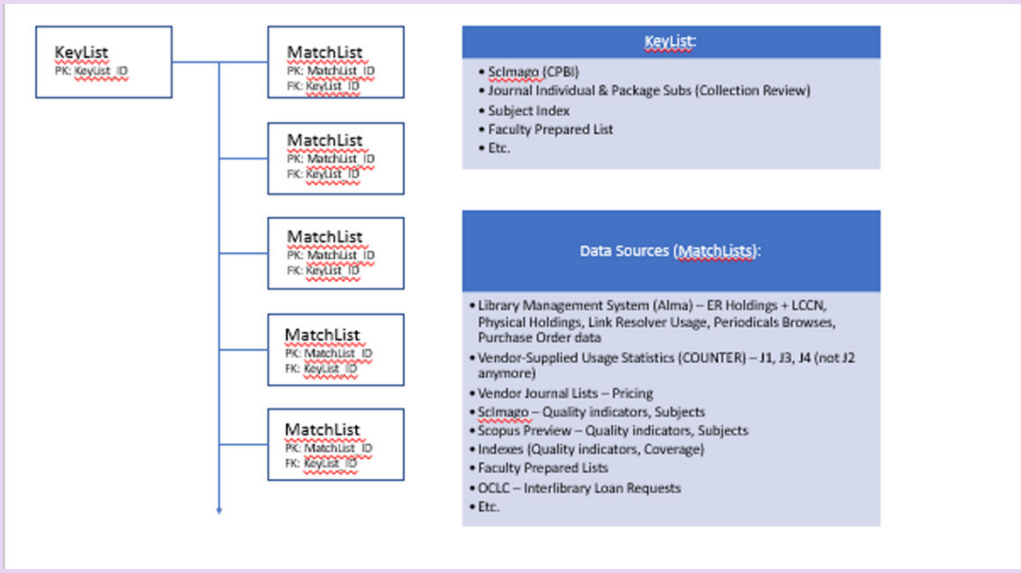
Collections Power BI (CPBI) Implementation: Data Design



"Star-Schema," SqlPac, Accessed 4/12/2023, https://en.wikipedia.org/wiki/Star_schema#/media/File:Star-schema.png, CC BY-SA 3.0

In PBI, developers are encouraged to use a "star schema" as a data model. In a star schema, there is one table at the center of the star serving as a junction for other tables, which are the points of the star. A star schema is a lot like a keylist surrounded by matchlists.

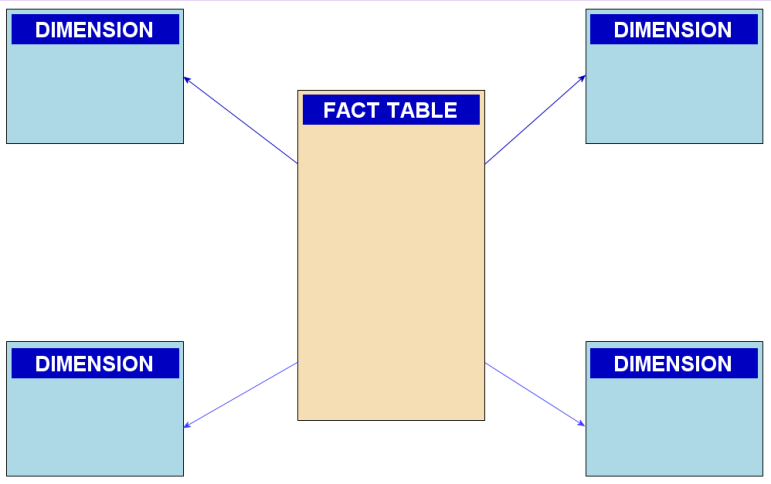
Collections Power BI (CPBI) Implementation: Data Design



link.mnsu.edu/datavideo

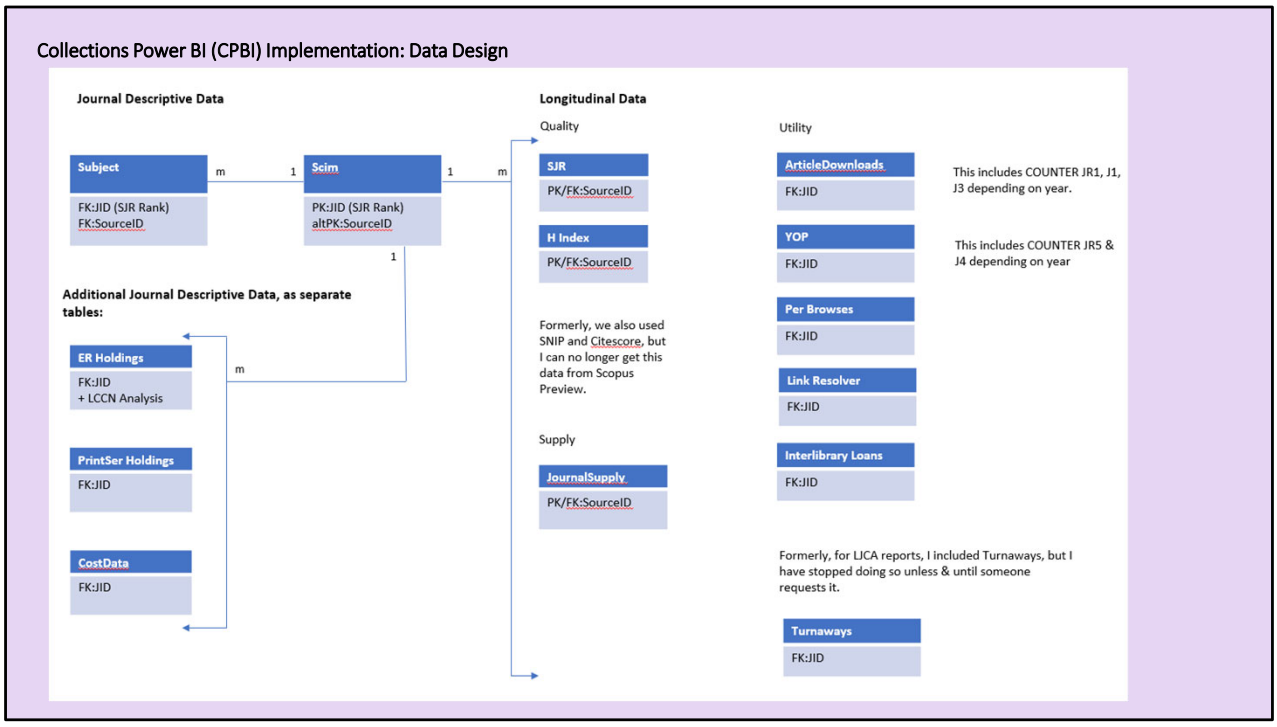
In other words, if anyone were to start preparing tables like we do, by creating a keylist and matchlists, then they could produce reports similar in scope to the CPBI.

Collections Power BI (CPBI) Implementation: Data Design



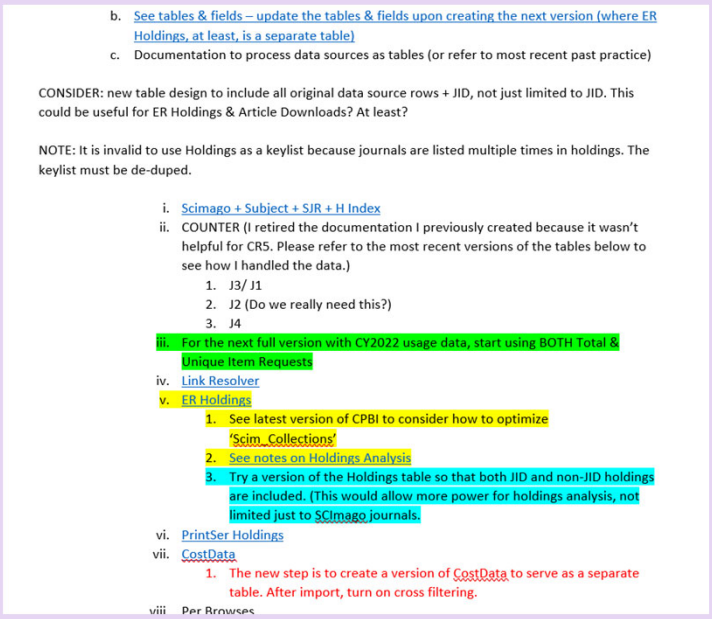
"Star-Schema," SqlPac, Accessed 4/12/2023, https://en.wikipedia.org/wiki/Star_schema#/media/File:Star-schema.png, CC BY-SA 3.0

A problem for our implementation has been that we didn't start simple, building up from three to five to seven tables in PBI. This is because we already had about a dozen tables ready to go resulting from our previous work.



Our initial data model was too complex and it continues to be complex. I'm still learning how best to revise it and how best to communicate to users what to expect from the CPBI.

Collections Power BI (CPBI) Implementation: Data Design



b. See tables & fields – update the tables & fields upon creating the next version (where ER Holdings, at least, is a separate table)
c. Documentation to process data sources as tables (or refer to most recent past practice)

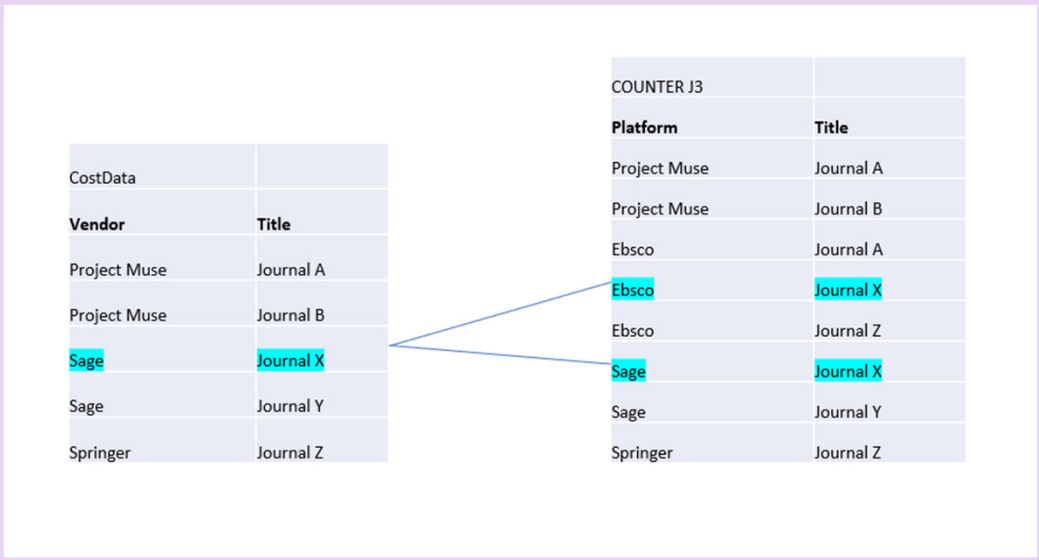
CONSIDER: new table design to include all original data source rows + JID, not just limited to JID. This could be useful for ER Holdings & Article Downloads? At least?

NOTE: It is invalid to use Holdings as a keylist because journals are listed multiple times in holdings. The keylist must be de-duped.

i. Scimago + Subject + SJR + H Index
ii. COUNTER (I retired the documentation I previously created because it wasn't helpful for CR5. Please refer to the most recent versions of the tables below to see how I handled the data.)
    1. J3/ J1
    2. J2 (Do we really need this?)
    3. J4
iii. For the next full version with CY2022 usage data, start using BOTH Total & Unique Item Requests
iv. Link Resolver
v. ER Holdings
    1. See latest version of CPBI to consider how to optimize 'Scim_Collections'
    2. See notes on Holdings Analysis
    3. Try a version of the Holdings table so that both JID and non-JID holdings are included. (This would allow more power for holdings analysis, not limited just to SCImago journals.
vi. PrintSer Holdings
vii. CostData
    1. The new step is to create a version of CostData to serve as a separate table. After import, turn on cross filtering.
viii. Per Browses

My documentation is filled with highlighted notes of things to remember and things to try. There are some unavoidable data integrity problems in the CPBI, which means it would be possible to create charts presenting false or confusing results depending on how we filter the data. There are also new opportunities to get more information from our data.

Collections Power BI (CPBI) Implementation: Data Design

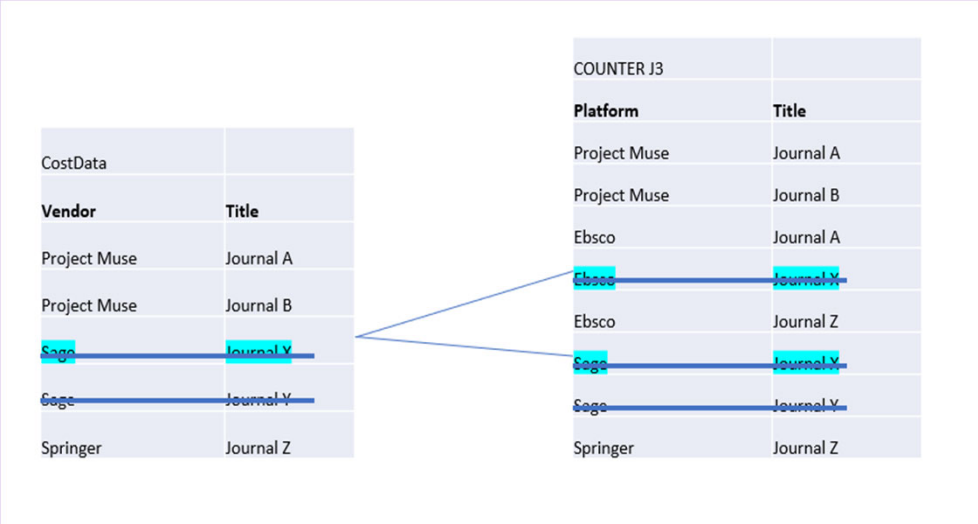


CostData	
Vendor	**Title**
Project Muse	Journal A
Project Muse	Journal B
Sage	Journal X
Sage	Journal Y
Springer	Journal Z

COUNTER J3	
Platform	**Title**
Project Muse	Journal A
Project Muse	Journal B
Ebsco	Journal A
Ebsco	Journal X
Ebsco	Journal Z
Sage	Journal X
Sage	Journal Y
Springer	Journal Z

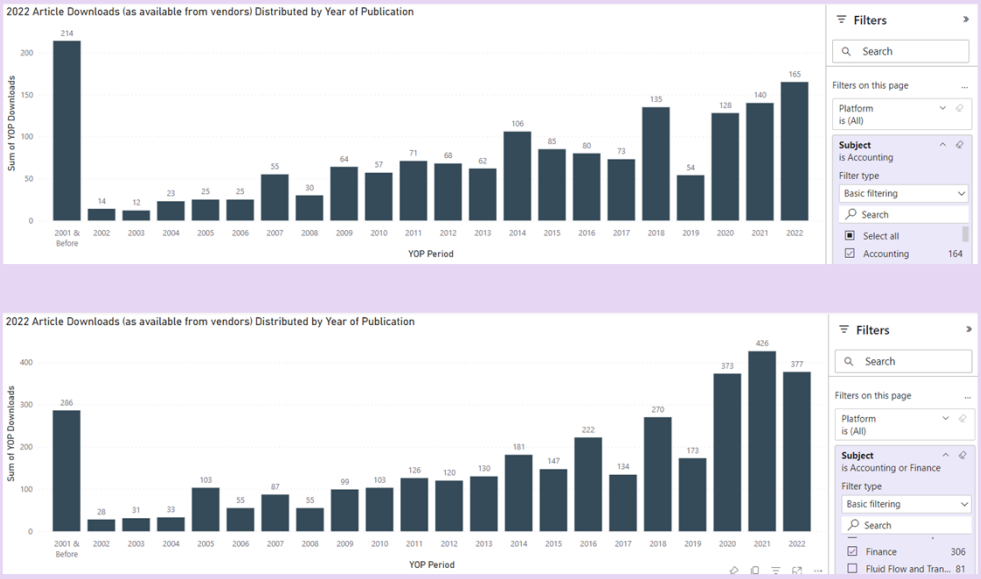
Here's a simplified example of a data concern. Imagine a chart constructed by linking a Cost table to a Usage Stats table. The Cost table is limited to subscriptions and there is one row for any given journal, but on the Usage Stats table, one journal might appear multiple times, if the journal is on multiple platforms. On this slide, we see an example where Journal X, published and sold by Sage, is also on the Ebsco platform. If we were to make a chart displaying Usage Stats and if we provided Vendor as a filter, then users might be confused by the results.

Collections Power BI (CPBI) Implementation: Data Design



Upon filtering on the Vendor Sage, some users might think the Usage Stats would still include all non-Sage usage. But no. All of the Sage journals would be removed from the results. This might be okay for some scenarios, but not for others. Either way, our users might not understand the difference. When creating the data viz, we need to be careful, either by taking a different path through the data when creating charts or by providing different filters. In the first iteration of the CPBI, I provided over a dozen different filters, most of which were just distractions. Now, we try to be much more intentional about the filters we provide.

Collections Power BI (CPBI) Implementation: Data Design

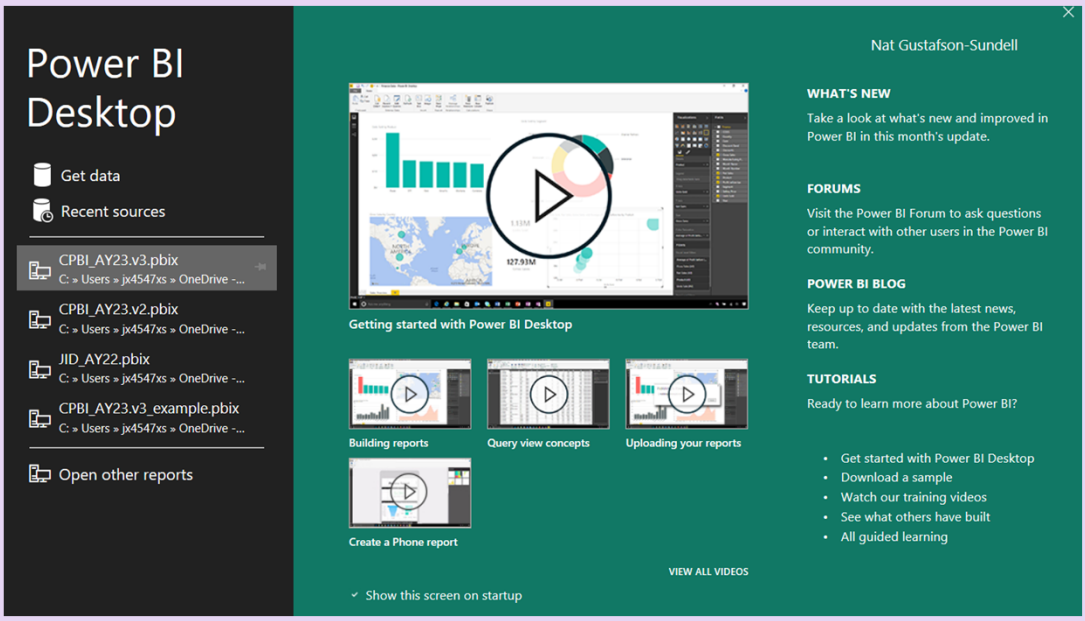


We want specific functionalities from our data, but there are consequences of the choices we make. As another example, we definitely want to use Subject as a filter, but journals can have multiple subjects. If users select more than one subject as a filter, they can create invalid results for any aggregated data. The top chart on the screen shows COUNTER J4 data filtered on Accounting only. The bottom chart shows the same data filtered on Accounting and Finance. If any journals are assigned to both Accounting and Finance, then the usage for these journals would be counted twice in the results and it would be very hard to know just by looking at the chart.

Collections Power BI (CPBI) Implementation: Data Design

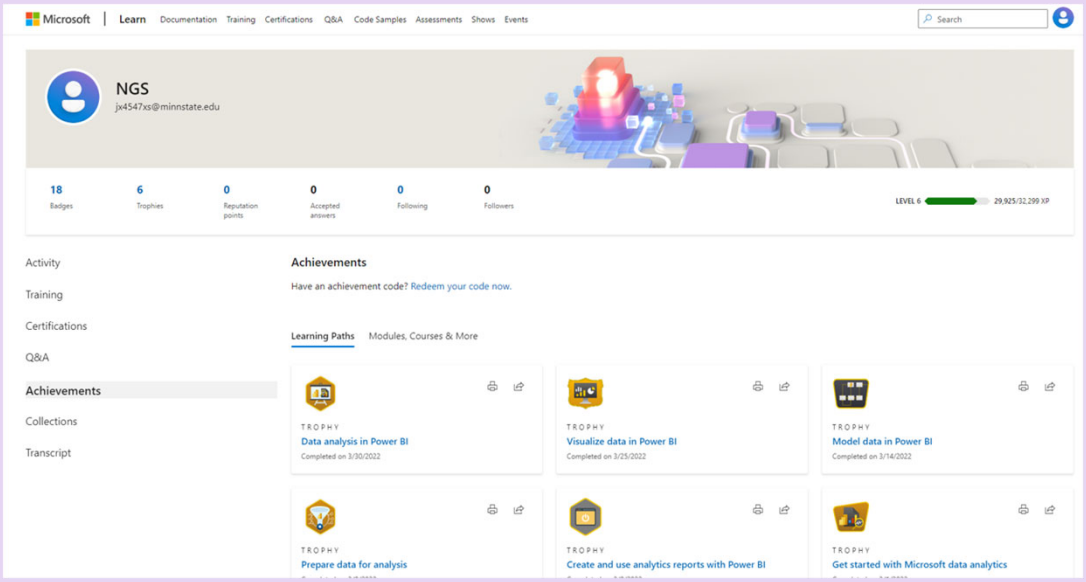
As we've continued to develop the CPBI, it has been important to learn to dial back the filter options in reports, so that they will be used in a manner that is valid, OR, in some cases, we continue to provide data visualizations and filters that could lead to invalid or confusing results if used incorrectly, but we try to communicate about how best to use the filters. We think recipes are probably a great way to teach users, but these are still under development.

Collections Power BI (CPBI) Implementation: Conclusion



I hope I've provided some sense of why to implement PBI, and some of the issues involved. I should conclude by saying that it's very easy to get started with PBI. Upon opening PBI, there's even a pop-up with pointers to helpful tutorials, forums, and more. The best way to start is probably just by starting. Play with one table, then three. Learn by doing.

Collections Power BI (CPBI) Implementation: Conclusion



Microsoft also provides abundant training materials for PBI. Actually, I spent spring break of 2022 getting to level 6 in their training program. I don't think that's very high... I get impatient with tutorials, but there's a large user community, so it's also possible just to ask questions when you're ready. Most answers are already out there.

CPBI Use Cases

1. The Accreditor Visit
2. The Department Meeting
3. The Package Renewal
4. The New Program

Thank you for bearing with me. Evan Rusch will now present some use cases for the CPBI.

Why is the CPBI so useful?

- Combinations of data in one place
- Needed reports can be accessed as needed and customized instantly.
- Dynamic—allows us to respond to questions in real time
- Can slot elements into other documents and presentations
- Users can explore and discover on their own, including within their own disciplines
- Can be shared across campus

The Collection Management Technology group has been developing journal collection analysis tools and reports for several years. We have moved through various iterations of software and technology and responded to a variety of needs for our campus and our library. In this section we are going look at some of the use cases for the CPBI, but I want to first address a few thoughts on why the CPBI is so useful. What makes this tool special as compared to previous reports and documents we've used in the past? While there is some overlap with Nat's discussion of our preference for Power BI, my hope is to demonstrate these benefits as I talk through specific use cases.

First CPBI combines multiple reports and sources of data in one place. This both saves time and can give the user a broader perspective on the journals or collection area they came to the CPBI to investigate. To provide the most simple of examples, if I am looking up information about any journal title, I am going instantly see our campus' usage of the title, the journal's quality metrics, and our holdings for that title, regardless of why I went to the CPBI in the first place.

Secondly, reports are already created and can be customized instantly. In the past, a

librarian might let us know they were going to a department meeting and then I would go to our colleague Jeff Rosamond and say “Can you get me a this report by Friday?”. In the CPBI, the report is already created, they just need to go in and access it. Also, inevitably we would have to tweak those standard reports to respond to some specific need. Now the tools to tweak the report are built in with filtering and sorting tools provided by Power BI.

This segues to the third benefit of the CPBI is that it is dynamic. As we just mentioned I can tweak reports to meet whatever need I have, but even more amazing is that a user can make those tweaks in real time and respond to questions from colleagues and stakeholders on the spot.

While a live demonstration may be best, we still have static documents like annual reports and accreditation documents that need charts, tables, or graphs. These data elements are pre-made and customizable and can be pulled and plugged into formal documents, slide decks, emails, or anything else we use to communicate about our collections.

By bringing all this data together in an easy-to-use tool, our colleagues can explore and discover a wide range of information about our collections and use subject filtering to gain a better understanding of the world of journals within the disciplines they support.

Lastly, as Nat already suggested, Power BI is software already used on campus and accessible within the campus Microsoft Windows package. This allows us to share the CPBI without worry that the user has the appropriate software.

Who Is the Audience for the CPBI?

- Academic Departments: working on accreditation reports, assessment documents, or collection development decisions.
- Administration: to demonstrate value of collections.
- Librarian Liaisons to Academic Departments: to support collection development, assessment, and teaching and learning.
- Members of the Journals Review Committee: to support both in-depth discussions related to collection development, analysis and assessment and as a handy tool for our day-to-day work

While the most significant user of the CPBI is going to be librarians, who in many cases would use the CPBI as a tool to support their communication with external stakeholders or allow them to respond to questions from the academic programs they work with. That said, the shareability of the tool means that professors or administrators who have an interest can simply access the link and explore on their own. Our hope is the tool is intuitive enough that non-librarian users would be comfortable seeking information in the CPBI. The members of our Journals Review Committee are likely to be the heaviest users as their work has them regularly analyzing our journal collections. Obviously there is some challenge to providing a tool that supports both the expert user versus the novice, but much like our work in collection analysis over the years the CPBI has been developed iteratively and continues to evolve as we get feedback from this range of different users.

Use Cases: The Accreditor Visit

- American Council for Construction Education asked for a meeting with a librarian with 2 weeks notice.
- Librarian liaison to the construction management program was first librarian to use the CPBI to contribute towards her presentation to the accreditors.

One of the first reasons we began collaborating to develop tools for analyzing our journal collections was to demonstrate value for the purposes of accreditation and program review. Our esteemed colleague Heidi Southworth was of the first librarians to use the CPBI to support accreditation. Heidi serves as the librarian liaison to the department of Construction Management. With two weeks' notice she was informed that accreditors from the American Council for Construction Education wanted a Zoom meeting with her to determine the quality of the Library's support for the Construction Management program. Without specific guidelines, Heidi put together a presentation that included details of her library instruction, a list of a relevant databases, and then went to the CPBI to find information that demonstrated our journal support for the program.

The Accreditor Visit Continued

From the CPBI she was able filter to the Scimago subject category of “Building and Construction” in the Collection Profile Subject report and was able to demonstrate that we have current access to all 17 construction-related titles in the top decile of the Scimago Journal Rankings, and had current access to 41 of the 48 titles in the top quartile of the Building and Construction List, which you can see in this chart. This established that we had holdings to the top-rated journals for this discipline, ensuring that we have adequate, if not a superior supply of high quality journals for this subject.

The Accreditor Visit Continued

Subject Journal List

Title	Scimago Rank	Best Quartile	Any ER Coverage	Recent & Current ER Coverage	Current Only ER Coverage	DISTINCT ER Venues	DISTINCT ER Providers	Article Downloads 13-22	Southworth Ratio	MavScholar Clicked Services 19-22	Print Browses	ILL Requests 19-22	Citable Docs. (3years)
Journal of Construction Engineering and Management - ASCE	3681	1	1	1	1	4	2	2,246	0.48	164			517
Automation in Construction	909	1	1	1	1	2	1	1,572	0.66	55			957
Applied Energy	572	1	1	1	1	1	1	1,227	0.49	78			5312
Energy	1203	1	1	1	1	2	1	1,078	0.48	76			6860
Construction and Building Materials	1538	1	1	1	1	1	1	1,054	0.66	150			9164
ENR (Engineering News-Record)	25959	4	1	1	1	6	3	916	0.18	65	14		577
Energy and Buildings	1719	1	1	1	1	1	1	776	0.45	66			2203
Building and Environment	2088	1	1	1	1	1	1	618	0.52	66			1950
Construction Management and Economics	4433	1	1	1	1	4	2	361	0.52	48			161
Tunnelling and Underground Space Technology	1079	1	1	1	1	1	1	318	0.84	12			1114
Engineering, Construction and Architectural Management	6639	1	1	1	1	5	3	260	0.44	35			411
ASHRAE Journal	18984	4						252	0.17	8			266
Journal of Architectural Engineering	11987	1	1	1	1	4	2	230	0.41	15			154
Journal of Performance of Constructed Facilities	6908	2	1	1	1	3	2	205	0.52	14			400
Journal of Structural Engineering	2412	1	1	1	1	3	2	197	0.36	17			872

She then shared with them the usage data from the Journals List Subject Report for the top 15 most used journal titles in the “Building and Construction” list. Here the reviewers saw titles they viewed as important to the field and it provided them evidence that our institution was using the sources they valued.

The Accreditor Visit Continued

- Accreditors followed up unannounced.
- Librarian was able to use the CPBI in real time to respond to follow up questions about our journal coverage.
- The accreditation reviewers' report gave very high praise for the library and specifically singled out our journal data.

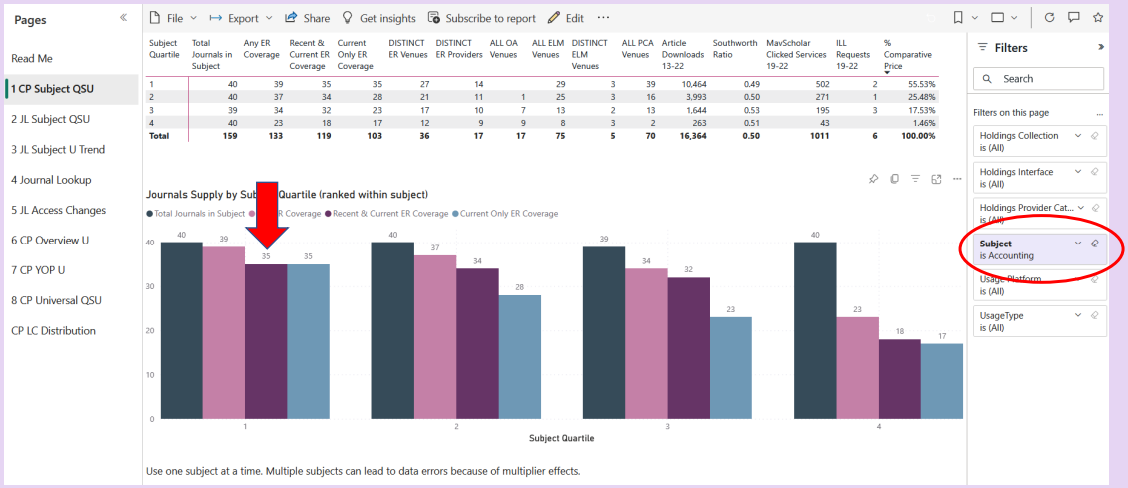
When the accreditors visited the campus, they showed up at the library unannounced, and asked to speak with Heidi. Heidi had a meeting with the reviews right then and they asked more specific questions about our journals' holdings. She was able to use the CPBI in that meeting to answer their questions in real time. In the accreditation report the reviewers gave high praise to Heidi and the library and said they especially appreciated the journal data.

The Department Meeting

- College of Business programs wanted a new subscription to a specialized journal package.
- To contain costs, we hoped to swap a weaker journal package primarily geared towards our business programs.
- Our business librarian used the CPBI to make the case to the College of Business faculty that we could drop the weaker journal package.

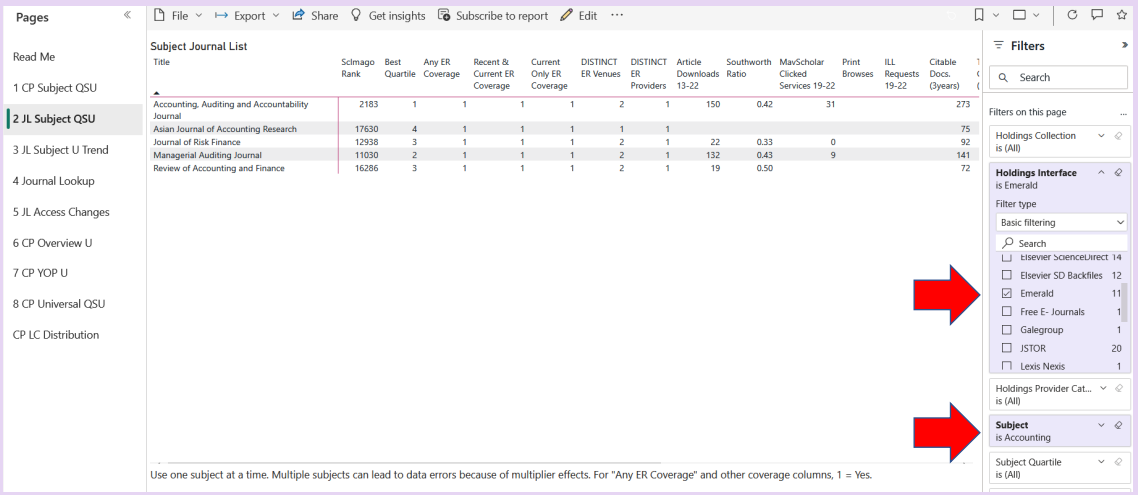
Faculty members in the College of Business were interested in a library subscription to a package of specialized journals. Our Journals Review Committee had concurrently been working on our biennial collection review and had identified a journal package with a strong emphasis in the business disciplines, as a weaker renewal. Our business librarian, Lisa Baures, set up a meeting to discuss library subscriptions with college representatives from each of the business programs. In that meeting she hoped to convince the business faculty to support a cancellation of the weaker package to offset the costs of this new subscription. Lisa went to that meeting and presented her case using the CPBI in a live demonstration.

The Department Meeting Continued



Like Heidi, she began by using the Collection Profile by Subject Report to demonstrate that even with the loss of the weaker journal package, we still had strong coverage for business. In the live meeting, Lisa was able to show coverage for the each of business disciplines by filtering for each subject one by one…for example, accounting, management, marketing, etc. Because the CPBI is dynamic Lisa could provide data for each discipline present in the meeting, where previously she might have needed to come to the meeting with multiple static reports that all would have had to been developed ahead of time.

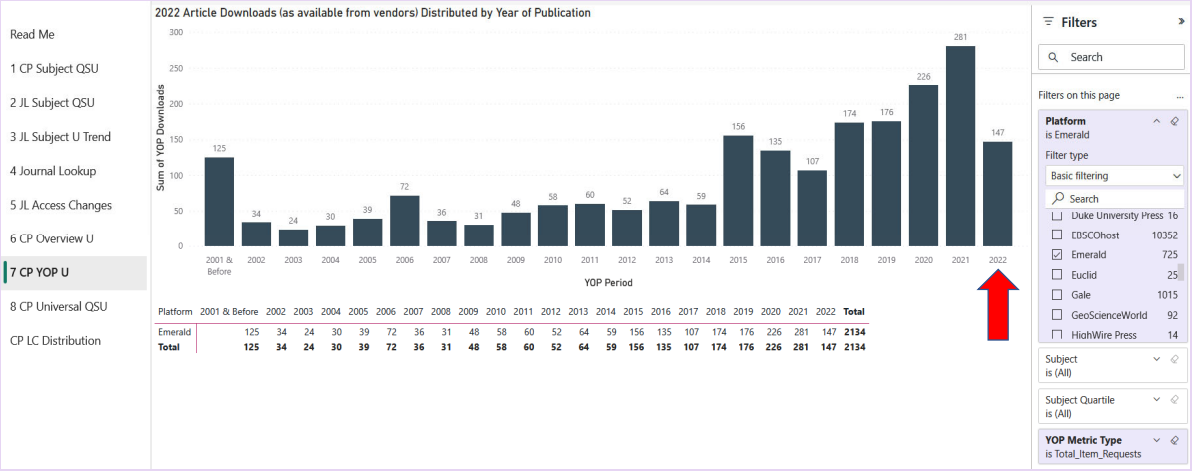
The Department Meeting Continued



Title	Sclmago Rank	Best Quartile	Any ER Coverage	Recent & Current ER Coverage	Current Only ER Coverage	DISTINCT ER Venues	DISTINCT ER Providers	Article Downloads 13-22	Southworth Ratio	MavScholar Clicked Services 19-22	Print Browses	ILL Requests 19-22	Citable Docs. (3years)
Accounting, Auditing and Accountability Journal	2183	1	1	1	1	2	1	150	0.42	31			273
Asian Journal of Accounting Research	17630	4	1	1	1	1	1						75
Journal of Risk Finance	12938	3	1	1	1	2	1	22	0.33	0			92
Managerial Auditing Journal	11030	2	1	1	1	2	1	132	0.43	9			141
Review of Accounting and Finance	16286	3	1	1	1	2	1	19	0.50				72

Secondly Lisa used the Journals List by Subject Report and filtered the results by the specific package of journals we were proposing to drop. She then filtered the list of journals in the package by subject to see the specific titles that would be impacted by cancellation for each of the business disciplines. From this list she could point out specific journal's usage and quality levels for each title. Perhaps more importantly for Lisa's argument, this report showed which titles we had overlapping coverage from aggregators, and thus much of the content of the journals would not be lost to our campus if we cancelled the package.

The Department Meeting Continued



Lastly, Lisa used the Collection Profile Year of Publication Report which utilizes J4 data to demonstrate whether our patrons are using recent or older publications. Much of the overlapping coverage for this journal package is available with a 1 year embargo in a business database we subscribe to. Lisa filtered the year of publication report to the journal package in question and was able to show that usage spanned well beyond the most current year and made the case that we can rely on interlibrary loan to cover those most recent issues. The end result was a success, and the college supported the package swap.

The Package Renewal

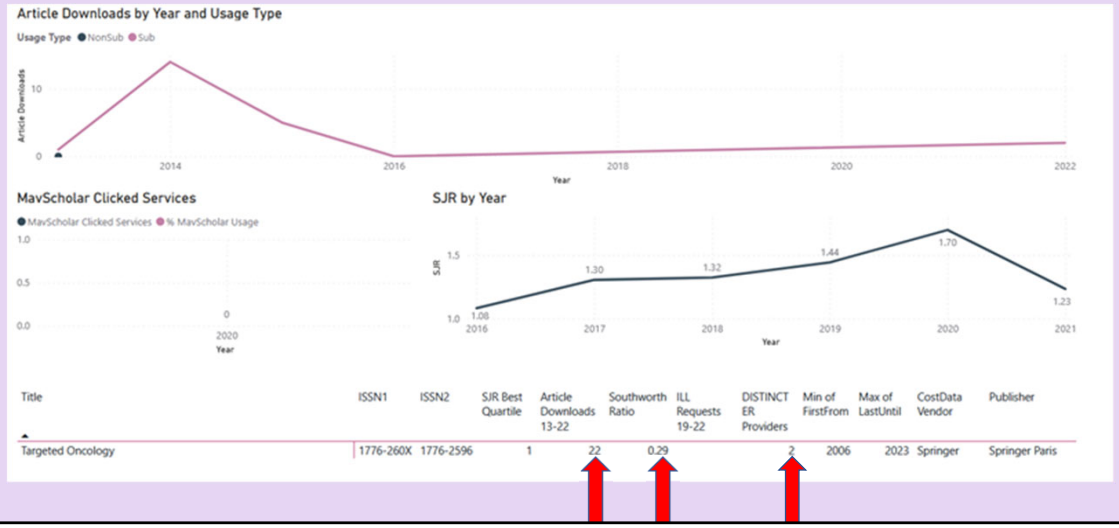
- A big deal that was up for renewal had a handful of flexible titles that could be dropped.
- We used the CPBI to do a quick assessment of those titles.

One of our big deals was up for renewal and the package had a small number of titles from an imprint of the larger publisher that could be dropped or added to our package. We had subscriptions to 3 titles from this imprint and while we didn't have any reason to assume that they weren't useful titles, we decided to do a quick search of the CPBI to see if anything stuck out that might dissuade us from renewing these titles.

The Package Renewal Continued

In 5 minutes we searched each of the titles in the Journal Lookup report within the CPBI. The results showed contrasting results. For the first journal, shown here, we can quickly see that that the title is of high quality, ranking in the top quartile of at least one Scimago subject list. It also has had pretty good usage with about 25 articles used a year over the last decade, and it has a high Southworth ratio which means that usage has been increasing in recent years. This increasing use is also demonstrated in the usage chart at the top of the report. One other important detail is shown in the arrow on the lower right, which suggests that we only have one distinct provider for this title. This means if we drop this title, we will lose all access for the campus. This quick assessment tells me this is a title we should renew.

The Package Renewal Continued



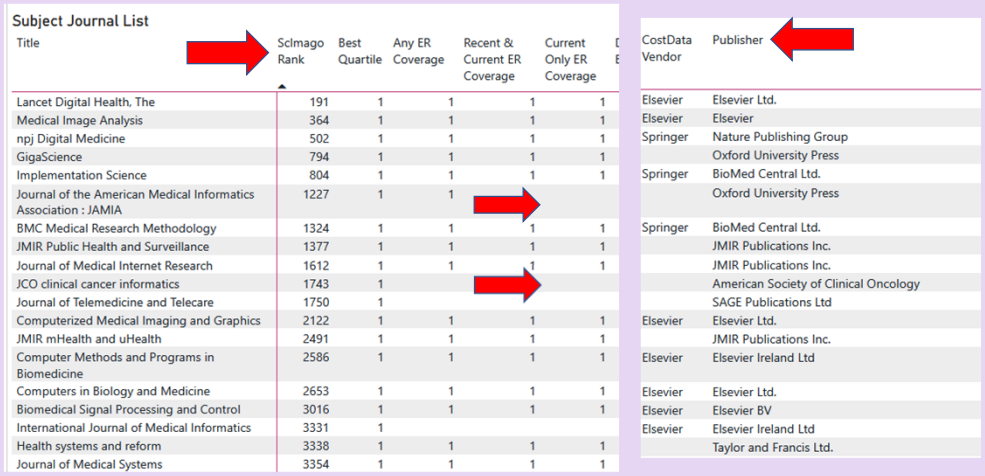
Here is the same report for one of the other two journals. It also is of higher quality, but had only 22 uses over the last nine years and has a declining Southworth ratio. In addition, we see that there are two distinct ER venues for this title. I checked on the second venue, and we have access to this title in an aggregator with a one year embargo. Again this report gave a quick assessment that this title is low use, that the use is declining, and that we have overlapping coverage. As a result we chose to drop this title from our package. This has been a great use of the CPBI as it allows us to quickly look up a title of a journal and in one search paint a pretty complete picture of what we know about a journal.

The New Program

- Information needed to suggest sufficient library materials were available to support a new program in health informatics.
- The CPBI could be used to show coverage and titles, but also supports a liaison librarian to learn about the world of journals that are connected to this discipline.
- The CPBI can also be used later to see if the development of the new program had an impact on usage of those journals.

A few years before the CPBI, a professor had contacted me to explain that they were launching a new program in health informatics, and wanted to know if we had sufficient journal coverage to support the new program. Now with the CPBI, I would likely have used the Collection Profile Subject Report, and filtered to the Scimago "Health Informatics" subject to demonstrate our level of holdings for this discipline. Once here, it would have been easy to help the department make the case to the campus curriculum committee that we had sufficient resources to support the program. In addition, charts from the Collection Profile Subject Report could have been added to the documents submitted to begin the new program. But I want to emphasize here that if I was the librarian serving a new program (or even a librarian switching departments they work with as a few of our colleagues have had to do this year), the CPBI gives me a chance to explore and learn about the journals that are important to the discipline.

The New Program Continued

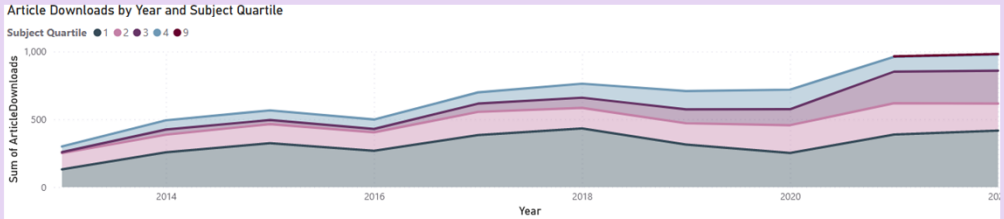


Subject Journal List

Title	SciImago Rank	Best Quartile	Any ER Coverage	Recent & Current ER Coverage	Current Only ER Coverage	CostData Vendor	Publisher
Lancet Digital Health, The	191	1	1	1	1	Elsevier	Elsevier Ltd.
Medical Image Analysis	364	1	1	1	1	Elsevier	Elsevier
npj Digital Medicine	502	1	1	1	1	Springer	Nature Publishing Group
GigaScience	794	1	1	1	1		Oxford University Press
Implementation Science	804	1	1	1	1	Springer	BioMed Central Ltd.
Journal of the American Medical Informatics Association : JAMIA	1227	1	1				Oxford University Press
BMC Medical Research Methodology	1324	1	1	1	1	Springer	BioMed Central Ltd.
JMIR Public Health and Surveillance	1377	1	1	1	1		JMIR Publications Inc.
Journal of Medical Internet Research	1612	1	1	1	1		JMIR Publications Inc.
JCO clinical cancer informatics	1743	1					American Society of Clinical Oncology
Journal of Telemedicine and Telecare	1750	1					SAGE Publications Ltd
Computerized Medical Imaging and Graphics	2122	1	1	1	1	Elsevier	Elsevier Ltd.
JMIR mHealth and uHealth	2491	1	1	1	1		JMIR Publications Inc.
Computer Methods and Programs in Biomedicine	2586	1	1	1	1	Elsevier	Elsevier Ireland Ltd
Computers in Biology and Medicine	2653	1	1	1	1	Elsevier	Elsevier Ltd.
Biomedical Signal Processing and Control	3016	1	1	1	1	Elsevier	Elsevier BV
International Journal of Medical Informatics	3331	1				Elsevier	Elsevier Ireland Ltd
Health systems and reform	3338	1	1	1	1		Taylor and Francis Ltd.
Journal of Medical Systems	3354	1	1	1	1		

To explore, I would go to the Journals List Subject Report and filter by subject to “Health Informatics”. The report allows us to sort by any of the columns and so in this example I sorted by Scimago Rank to see what were the high quality journals for that subject matter. Once sorted I can instantaneously see where we have gaps, as the holdings information is just to the right. Notice the two lower arrows show high quality titles that we lack current access. I can also find out what journal packages are important to the discipline, which is especially useful for those subjects that lean heavily on subject specific packages for their content. Scrolling further out to the right, I can see the publishers of the journals that are in that top tier.

The New Program Continued



Article Downloads per journal per year

Title	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Journal of Medical Internet Research	21	69	112	68	51	129	96		41	119	**706**
Online Journal of Nursing Informatics	22	45	48	50	47	89	64	123	94	55	**637**
International Journal of Medical Informatics	39	37	68	56	68	65	54	68	76	83	**614**
CIN - Computers Informatics Nursing		0	0	0	28	48	64	74	154	129	**497**
Journal of Medical Systems	2	52	38	28	59	35	33	57	61	67	**432**
BMC Medical Informatics and Decision Making	37	27	26	25	29	22	29	54	56	64	**369**
Journal of the Medical Library Association : JMLA	39	52	49	33	46	25	15	21	14	15	**309**
Health Informatics Journal	5	11	19	21	28	26	21	37	39	13	**220**
Journal of Biomedical Informatics	2	10	12	33	42	31	17	13	29	27	**216**
Health Information and Libraries Journal	8	15	16	13	25	21	17	36	27	11	**189**
BMC Medical Research Methodology	18	22	10	8	10	11	27	21	29	18	**174**
Computers in Biology and Medicine	17	6	5	7	22	13	10	9	62	22	**173**
Computer Methods and Programs in Biomedicine	13	6	14	12	21	51	9	15	11	10	**162**
Preventive Medicine Reports			1	22	23	41	29	16	19	9	**160**
Medical Reference Services Quarterly	5	10	14	24	14	14	13	13	4	38	**149**
Total	**300**	**493**	**566**	**499**	**699**	**763**	**709**	**719**	**965**	**982**	6,695

A search of the CPBI would also allow me to see which of the titles were getting used before the program began. I could later after the program is established, compare usage from before the program began to its current state using the Journal List Subject Use Trend Report you see here. This chart shows the trends in usage for health informatics journals for both individual titles and the aggregate. This chart spans from the time I was first asked about the potential program to now. We can see that usage of health informatics titles have almost doubled since that program began! For that program, this looks like a strong chart to use in their accreditation or program review materials.

The Future Directions

- A Big Deal Cancellation?—CPBI should be the tool to help us engage our campus in that discussion.
- CPBI Cookbook—Building a user guide to what the CPBI can do, big and small.
- Outreach to college deans, the director of the new polytech, Provost and beyond—Support our Library's Dean as a user.
- Expand the CPBI to collections beyond journals or other non-collection data points.

There are numerous other use cases for the CPBI we have utilized or imagined, but hopefully this gives a few concreate examples of how the CPBI has been useful thus far. We anticipate that we will continue to adjust and refine the reports in the CPBI as we seek to be responsive to the various users of the tool. We have a few ideas for future directions for this project we would like to mention here.

One of the drivers for developing the CPBI was to create a tool that we could use when inflation forced us to cancel one of our big deals. We wanted something that librarians and professors could use together to see the impact that these large journal packages had on their departments and the strengths and weaknesses of each big deal to our overall journal collections. We think most of the data sources we need are present in the CPBI, but the question is can we engage the campus with the tool in advance of needing to make such a decision? Would we need different combinations of data or custom reports? Unfortunately this work may come sooner than we would prefer.

Also we are in the early stages of developing a cookbook of sorts. Basically we want to provide a guide that would both explain to our users how to use the CPBI for a

variety of purposes, but also let them know about uses they may not have anticipated.

We also have a goal to engage our administration beyond the library of the value and strength of our journal holdings. One way to do that is help our Library Dean become a strong user of the CPBI. We imagine the Dean presenting in administrative meetings much the way we described Heidi's meetings with accreditors or Lisa's with College of Business faculty earlier in this presentation.

Lastly, we are realizing the value that Power BI has in sharing data on campus, could we use Power BI for other collections data? Could we incorporate other library data, that would allow our colleagues to pull the relevant data as needed? If so, we could tailor reports to directly support the data elements we regularly include in our library-wide annual reports.

These are just a few thoughts of where we could go with this, we would love to hear what ideas you have for future directions or how you have used PowerBI and combined data to serve your library's needs? Thanks so much for coming to our presentation. We would happily take your questions or comments.

THANK YOU!