

What do Primo users want?

or finding evidence to understand user
behaviour in Primo

Megan Lee & Rachelle Orodio

IGeLU 2019



PROJECT DRIVERS

Most important	Rank
Library staff provide accurate answers to my enquiries	1
I can get wireless access in the Library when I need to	2
I can get help from Library staff when I need it	3
The Library Search facility enables me to find Library resources quickly (PRIMO)	4
Access to Library information resources has enabled me to perform better in my studies	5
Online resources (e.g. ejournals, databases, ebooks) meet my learning and research needs	6
When I am away from campus I can access the Library resources and services I need	9

USER FEEDBACK

- The online portal for accessing journal articles is **very slow** and bulky.
- Accessing articles through the library search portal takes way **too many steps**.
- Online resource availability tends to be very good although search results can be **hard to navigate**.
- Some links online for certain articles link to a different article, it makes it hard to find the actual journal article you need when the **links don't work**



STRATEGIC OBJECTIVES

- Develop discovery and access pathways to information
- Enhance the online Library environment



PROJECT OBJECTIVES

- Investigate if Primo user interface usability is improved by focusing on heavily used screen elements
- Investigate if Primo user interface usability is improved by simplify the number of elements present in the Primo screen design
- Based on user feedback, investigate if Primo search results are more relevant when search metadata is simplified
- Improve Primo search results by analysing zero search results
- Investigate user acceptance of FRBRisation
- Investigate user acceptance of application plug-ins to extend Primo functionality, eg Browzine integration at detail results screen



SUCCESS FACTORS

- Improved feedback on Primo usability in 2019 Library user survey (in progress)
- Improved Primo user search metrics in 2019 Library Annual Report (in progress)
- Improved user feedback collected either directly during three month post implementation survey or via ask.monash
- Positive feedback from Road Shows conducted at various branches, reported to IRSC and LMC as a result of Primo usability review
- Data collected from embedded feedback utility, as a basis for the three month post implementation review



PROJECT MILESTONES

Primo UX Review timeframe 2E+07											
	Preparation		Analysis	Communication		Testing	Maintenance	Development		RELEASE	
2017 August	Review available Primo User behaviour										
September											
October			Analyse past user behaviour log data	Report on Primo user patterns in log analysis to SDS &							
November	Build Primo beta test environments										
December	Build Primo beta test environments		Develop user testing scenarios				Install November Primo Service Pack				
2018 January	Build Primo beta test environments		Develop user testing scenarios								
February			Develop user testing scenarios								
March	Test and evaluate third party plug ins										
April						Implement First round of user testing					
May			Analyse First round of user testing	Report on first round user testing to SDS &							
June								Update Primo configuration based on first round of	Add in third party plug in for user testing		
July						Implement second round of user testing	Install May Primo Service Pack				
August			Analyse second round of user testing	Report on second round user testing to							
September						Test new Primo User Interface in Innovation Studio		Update Primo configuration based on second	Update Primo look & Feel based on Innovation		
October				report on results of Innovation studio testing to							
November				Implement user communication plan to alert all users to upcoming changes to Primo UI		Run Staff focused user roadshows to alert all staff to upcoming changes to Primo UI		Embed user feedback tool in new Primo UI			
December	RELEASE	RELEASE	RELEASE	RELEASE	RELEASE	RELEASE	RELEASE	RELEASE	RELEASE	RELEASE	RELEASE
2019 January							Install November Primo Service Pack				
February											



PRIMO USER BEHAVIORAL TRENDS

- a year's worth of Primo usage logs from our Primo server
- Primo and Alma analytics and
- Google analytics



RESEARCH DATASET 1

<https://tinyurl.com/y5k4nzh4>



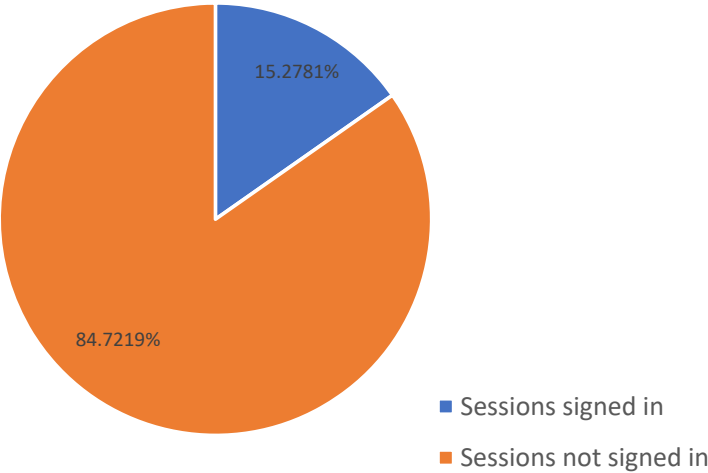
RESEARCH QUESTIONS

- How do users search in Primo?
- Where do they start their searches?
- Which screen elements do they use most heavily, and which they ignore and
- What can we understand from how users structure their searches?



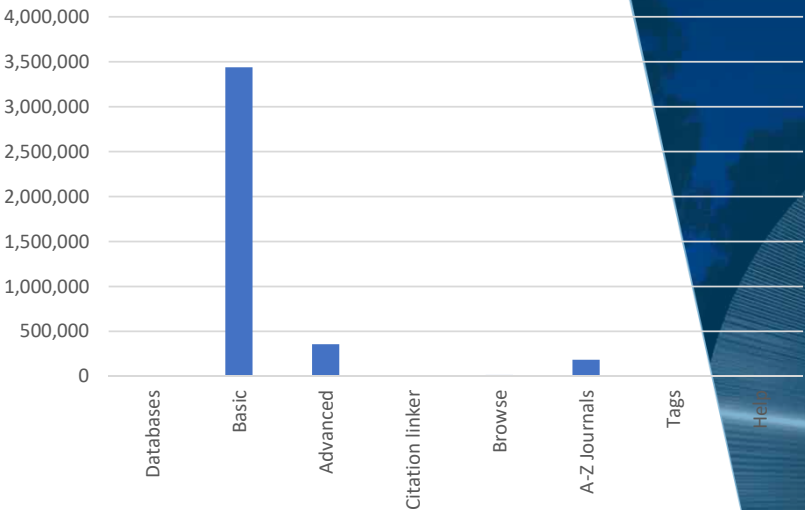
Primo landing page

Sign-in link

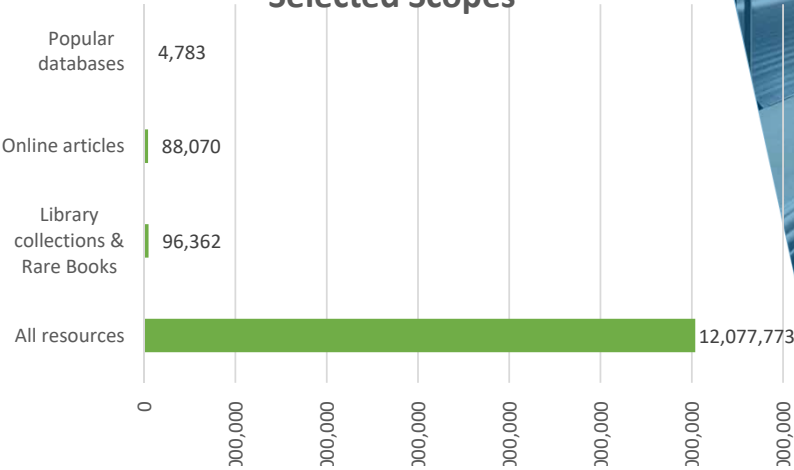


Source Primo analytics

Search launch Interface



Selected Scopes



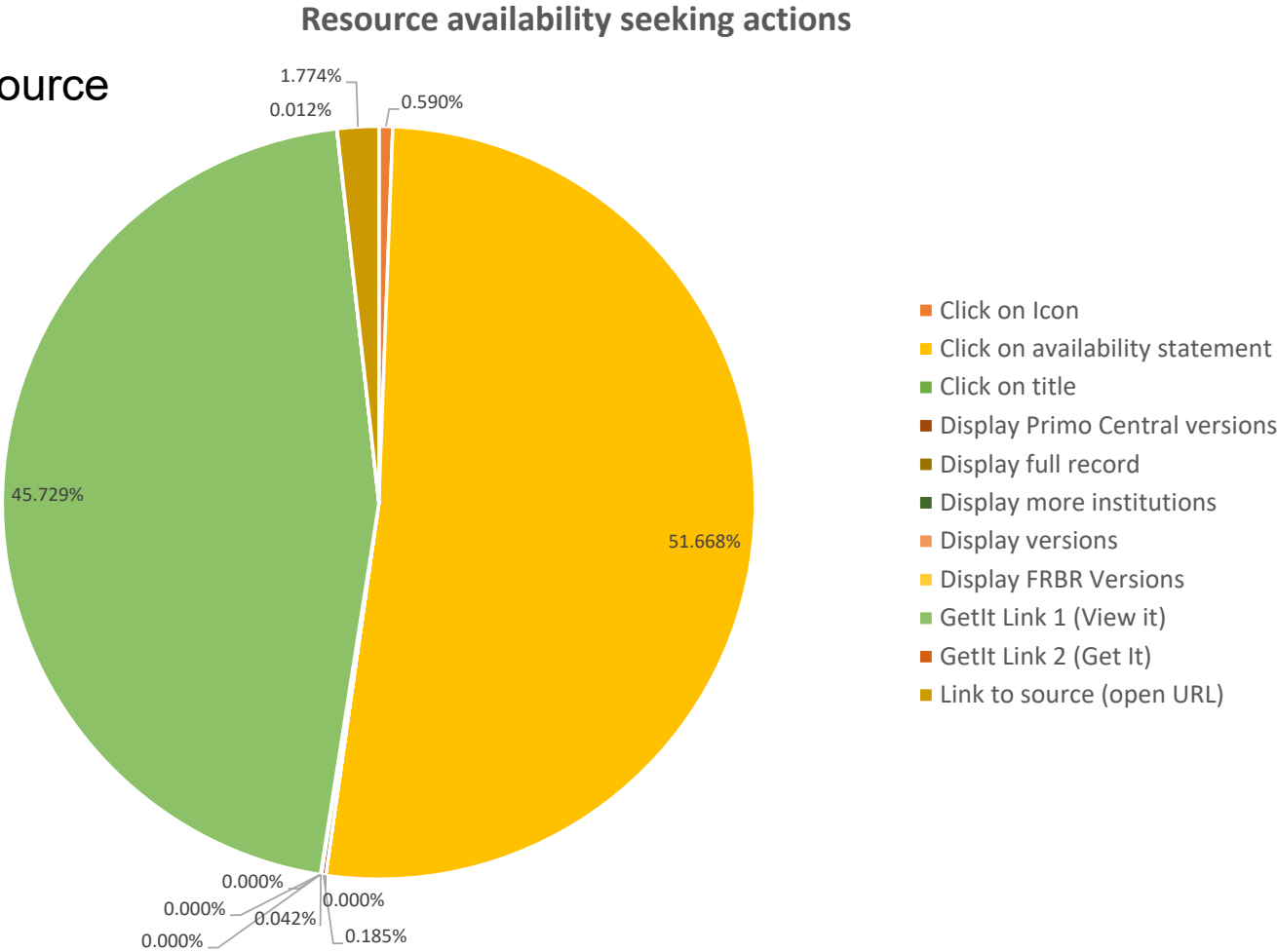
Primo result refining function categories

1. Narrowing search results
2. Broadening search results
3. Personalising search results and
4. Saving search results or user information for reuse



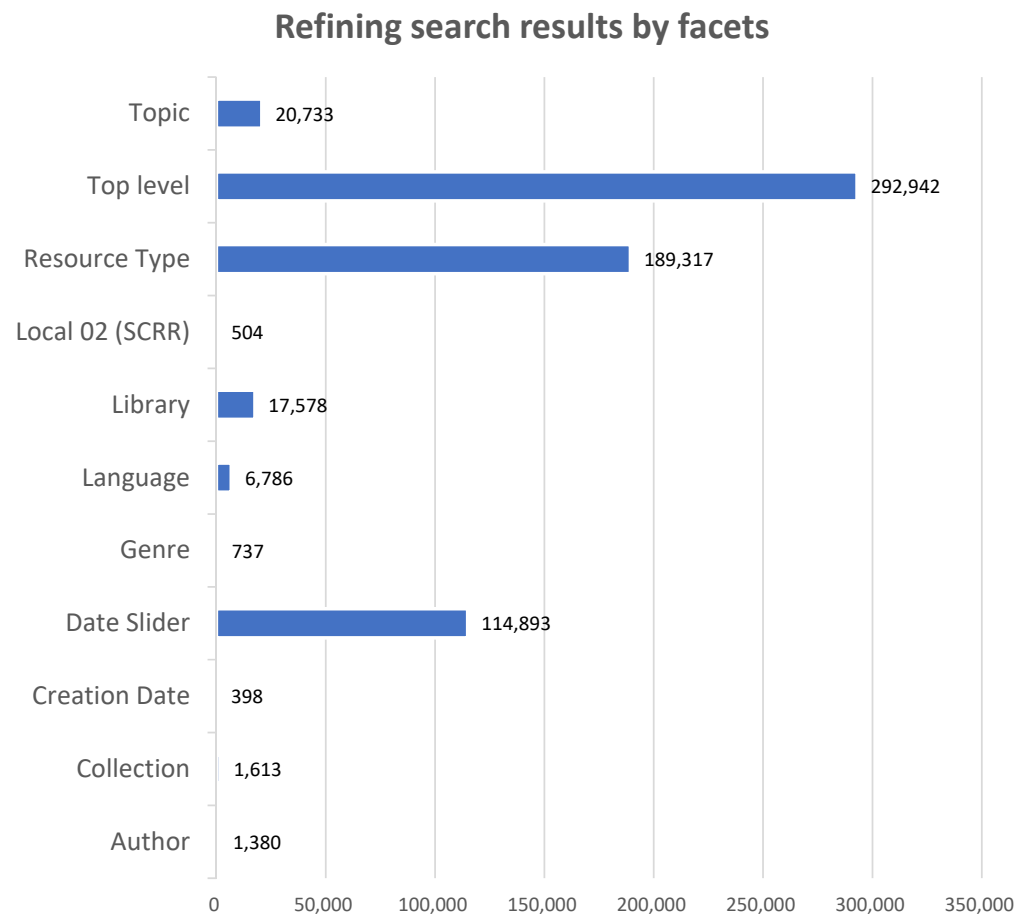
Navigating brief results

45% of Primo actions were Resource availability seeking actions



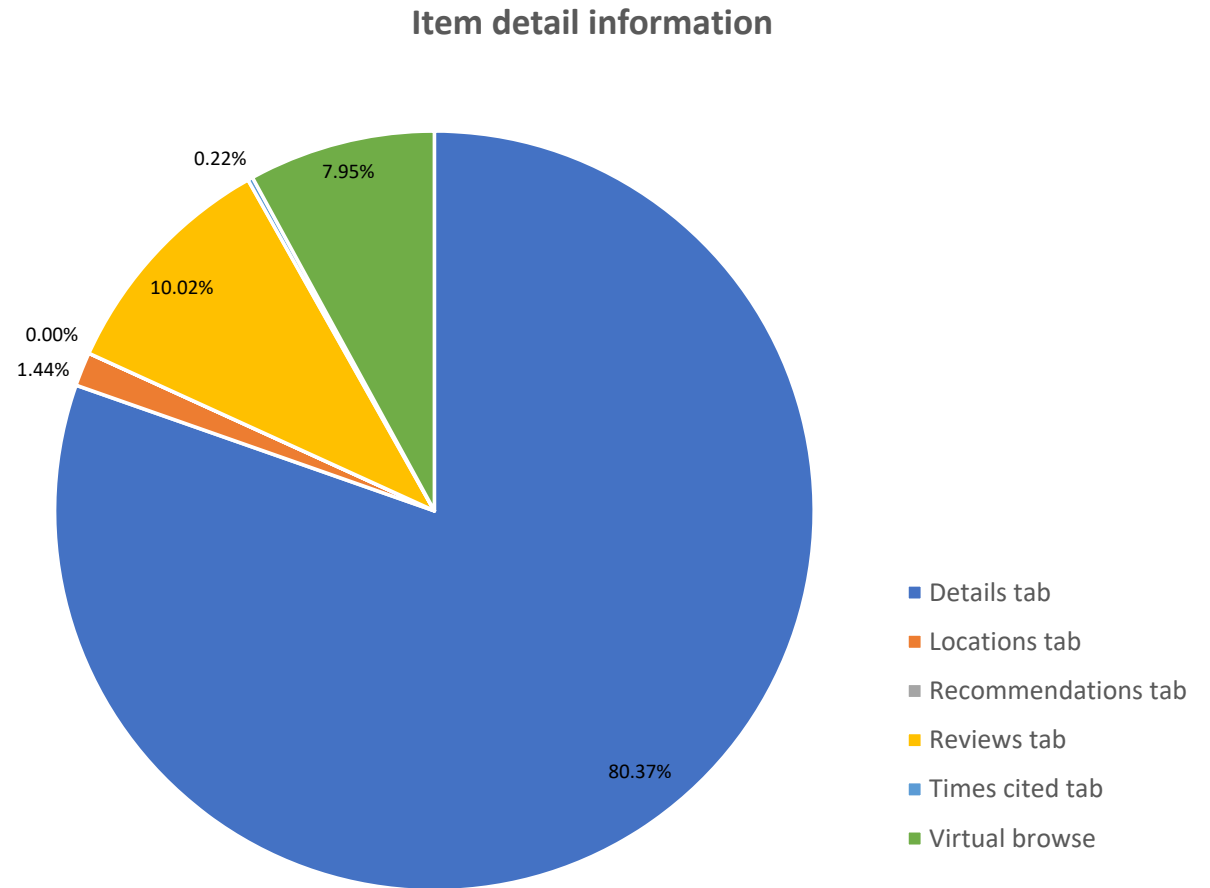
Source Primo analytics

Narrowing by facets



Narrowing by Item details

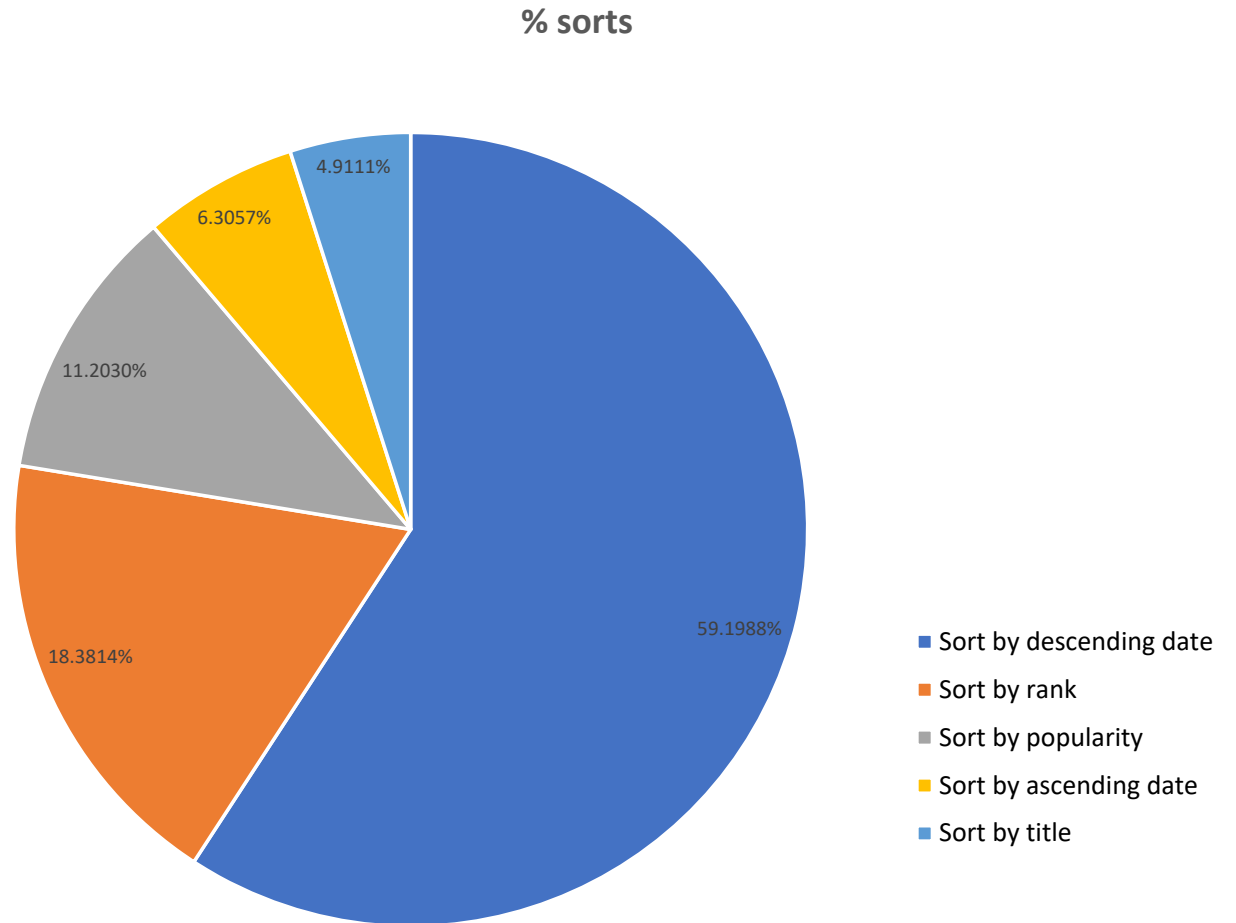
5% of Primo search actions were “Item detail” refining actions.



Source Primo analytics

Navigating by sorting

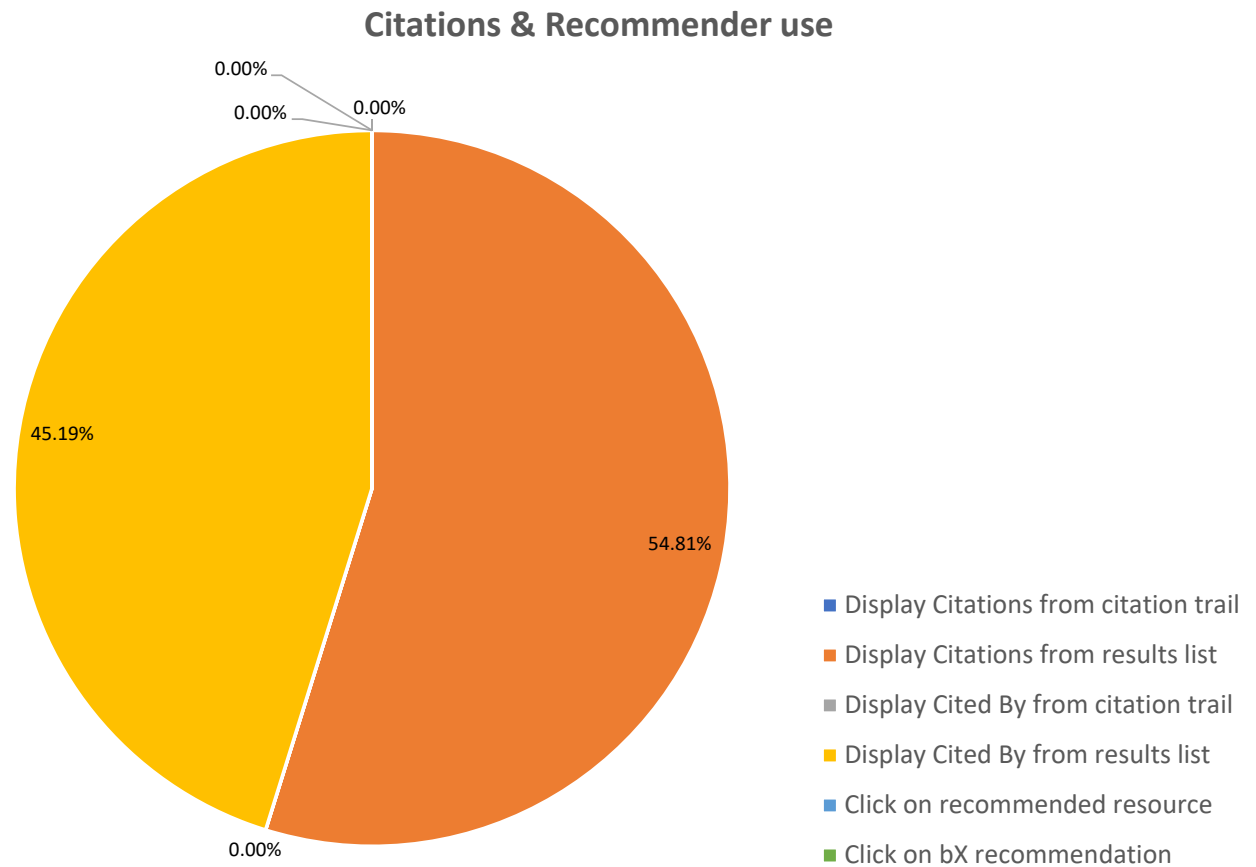
0.35% of Primo search actions were “sort by” actions.



Source Primo analytics

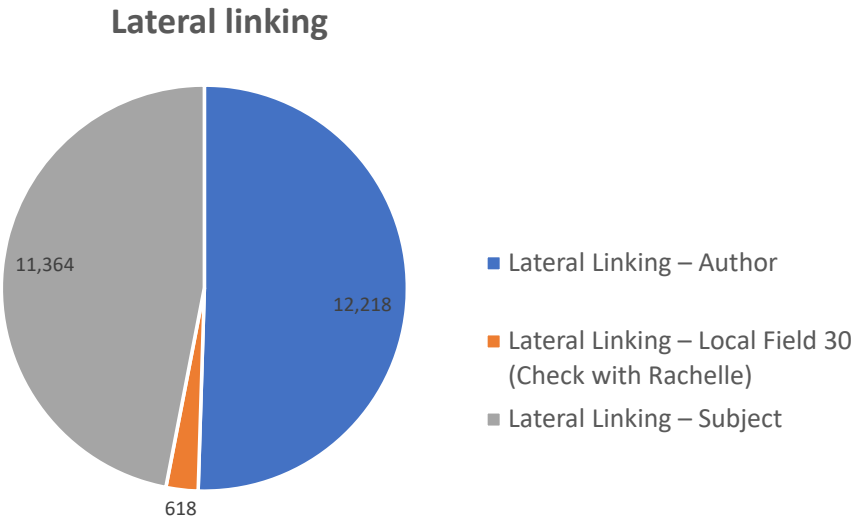
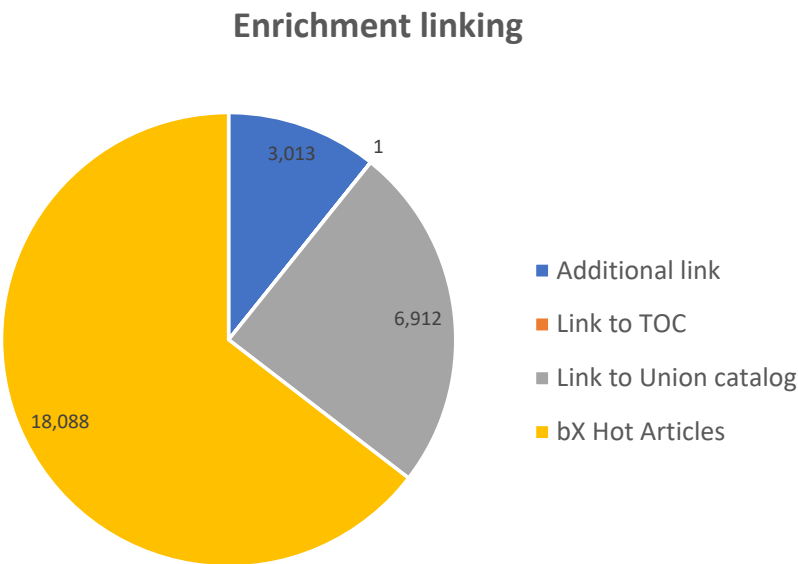
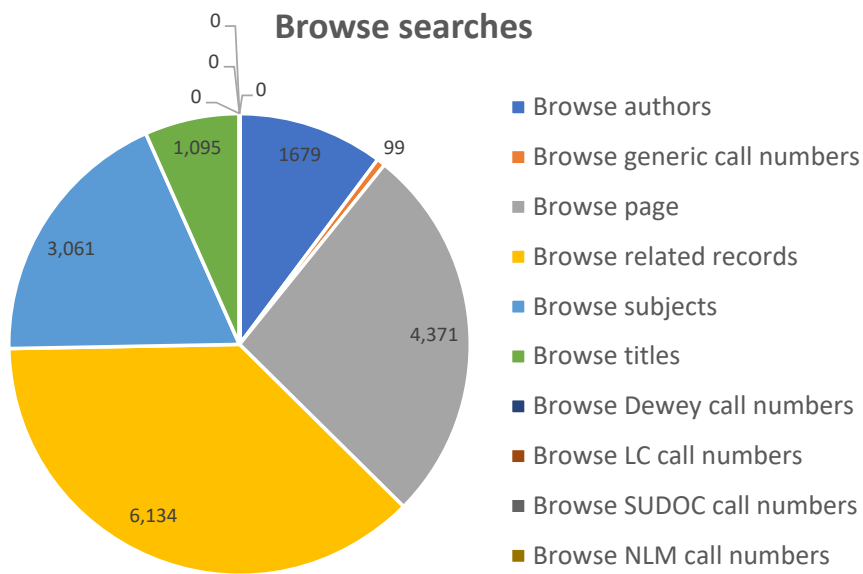
Narrowing by citations & recommender

0.1% of Primo search actions were
Citation & recommender activity



Source Primo analytics

Broadening search results

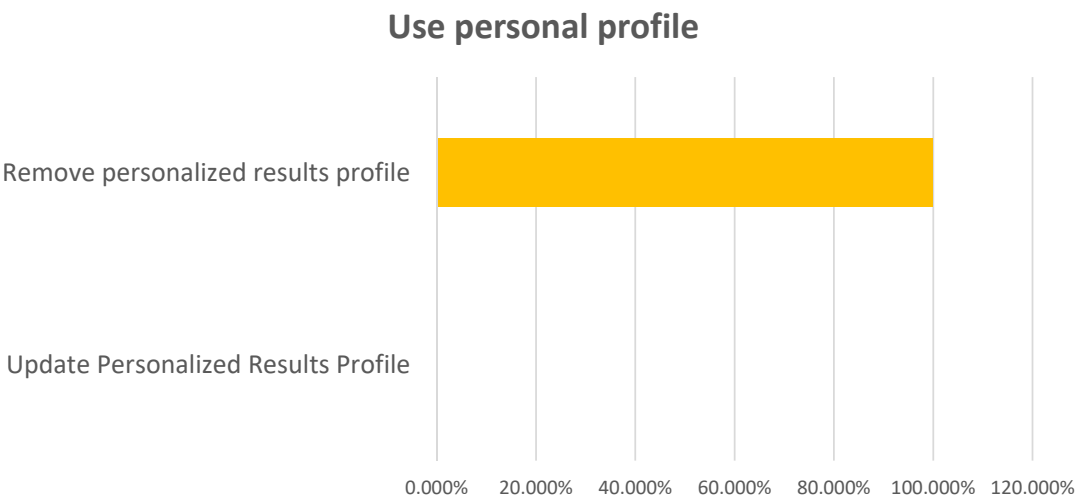
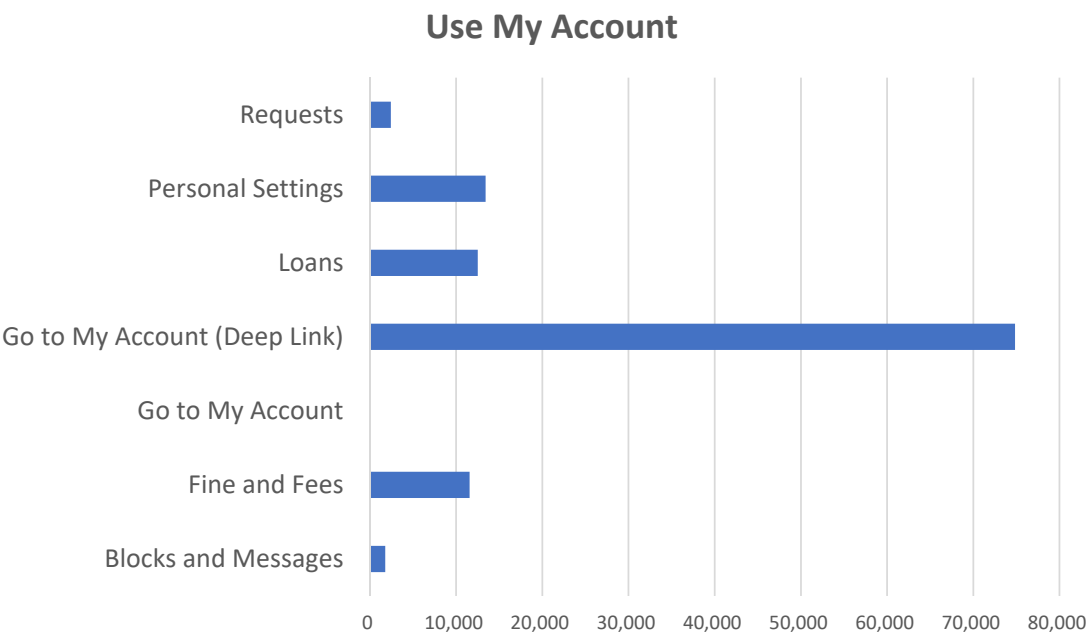


Source Primo analytics

Personalise search results

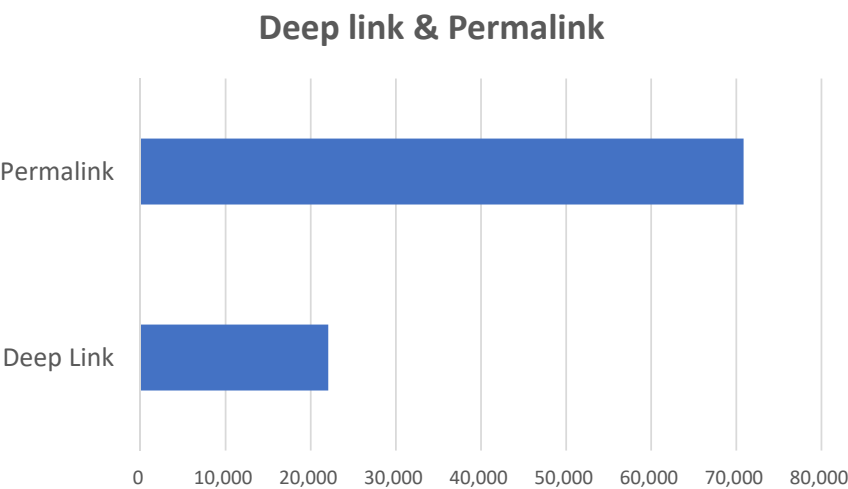
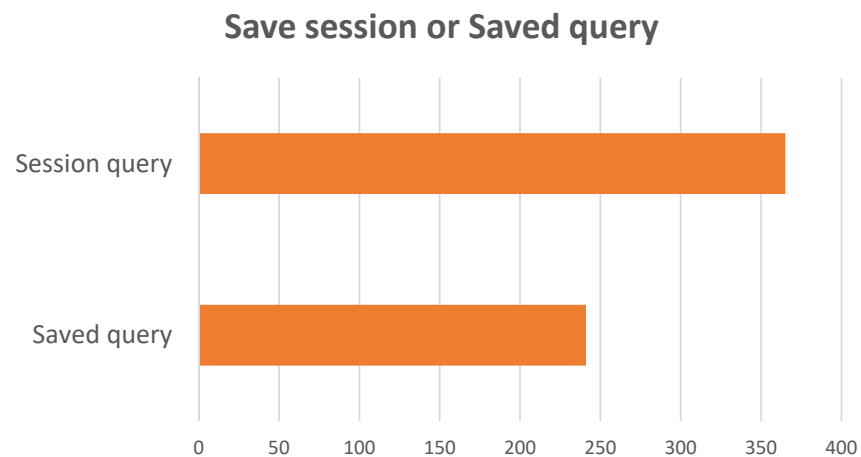
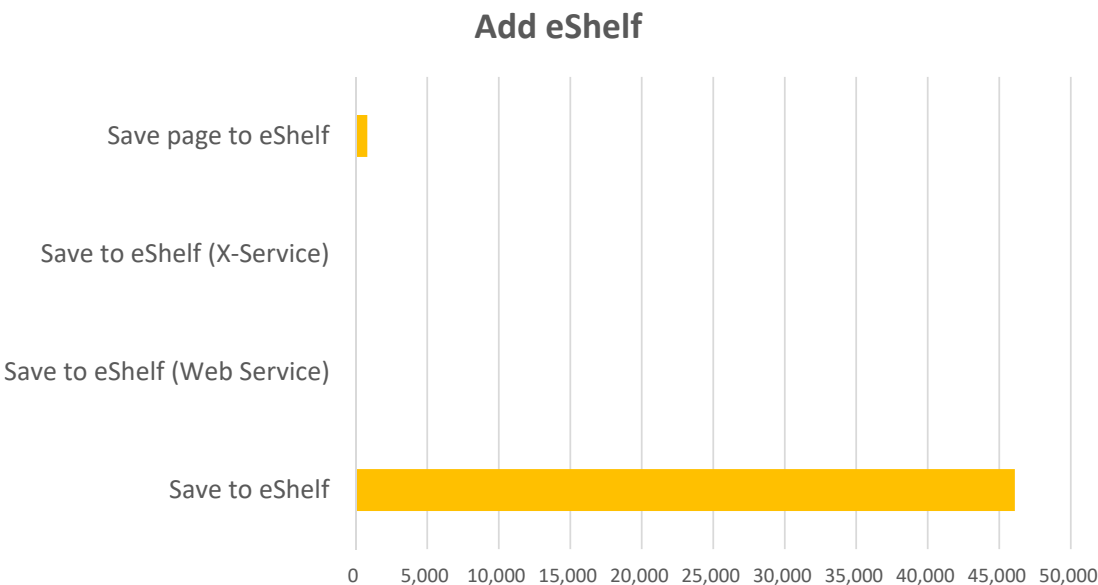
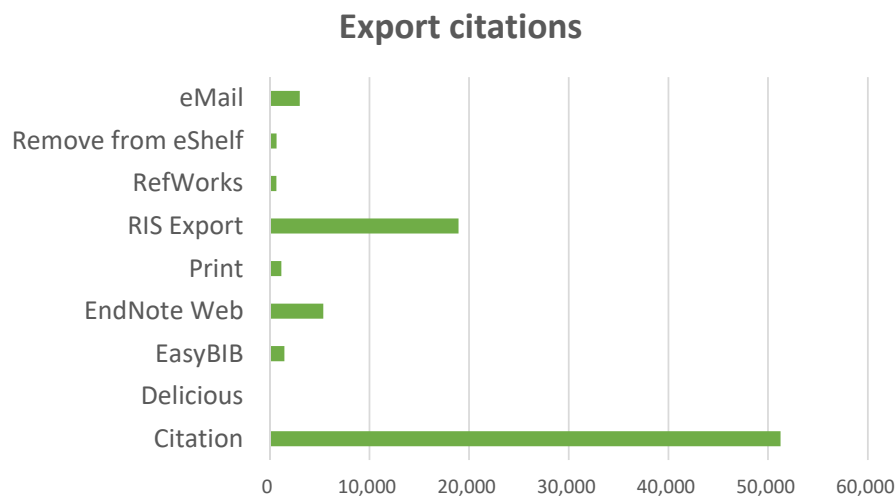


Source Primo analytics



Reusing search results

Source Primo analytics

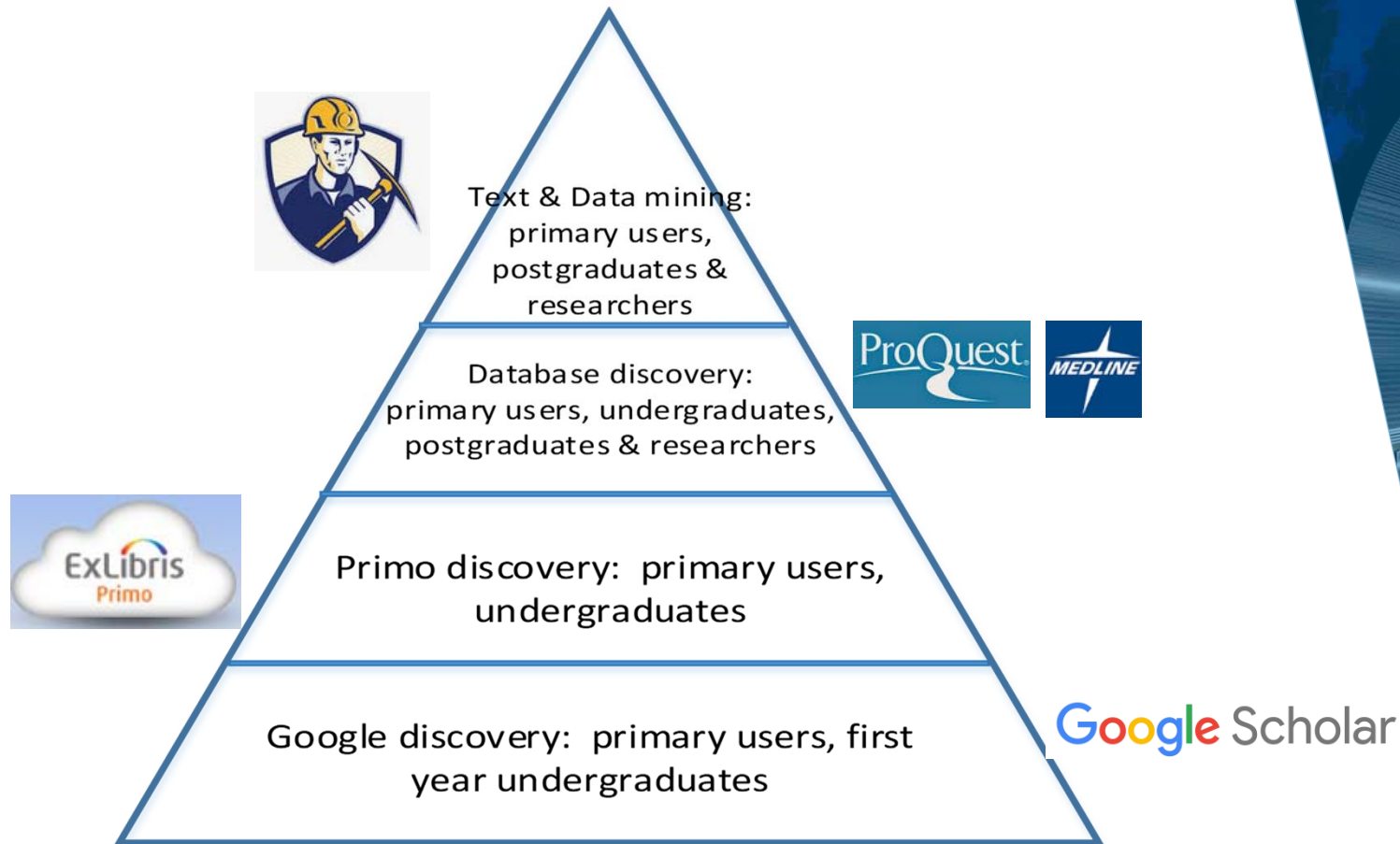


Analysis of user search strategies

- 44% of user searches are two to four words long.
- 69% of searches are either under seven words long
- 14% of searches include more than fifty words
- Most searches are fairly simple, eg 'marketing mix' is the most commonly occurring search term
- 1.13% of all searches were unsuccessful

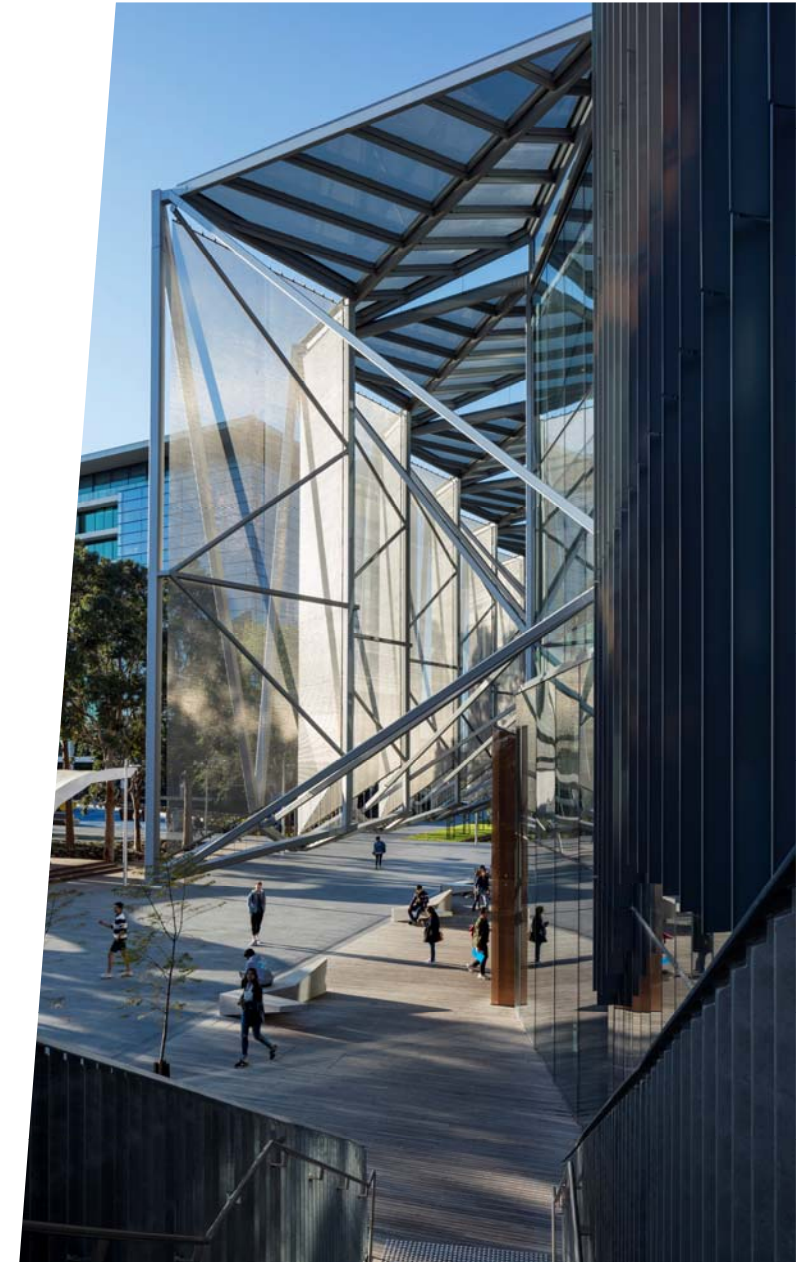


Library discovery application hierarchy

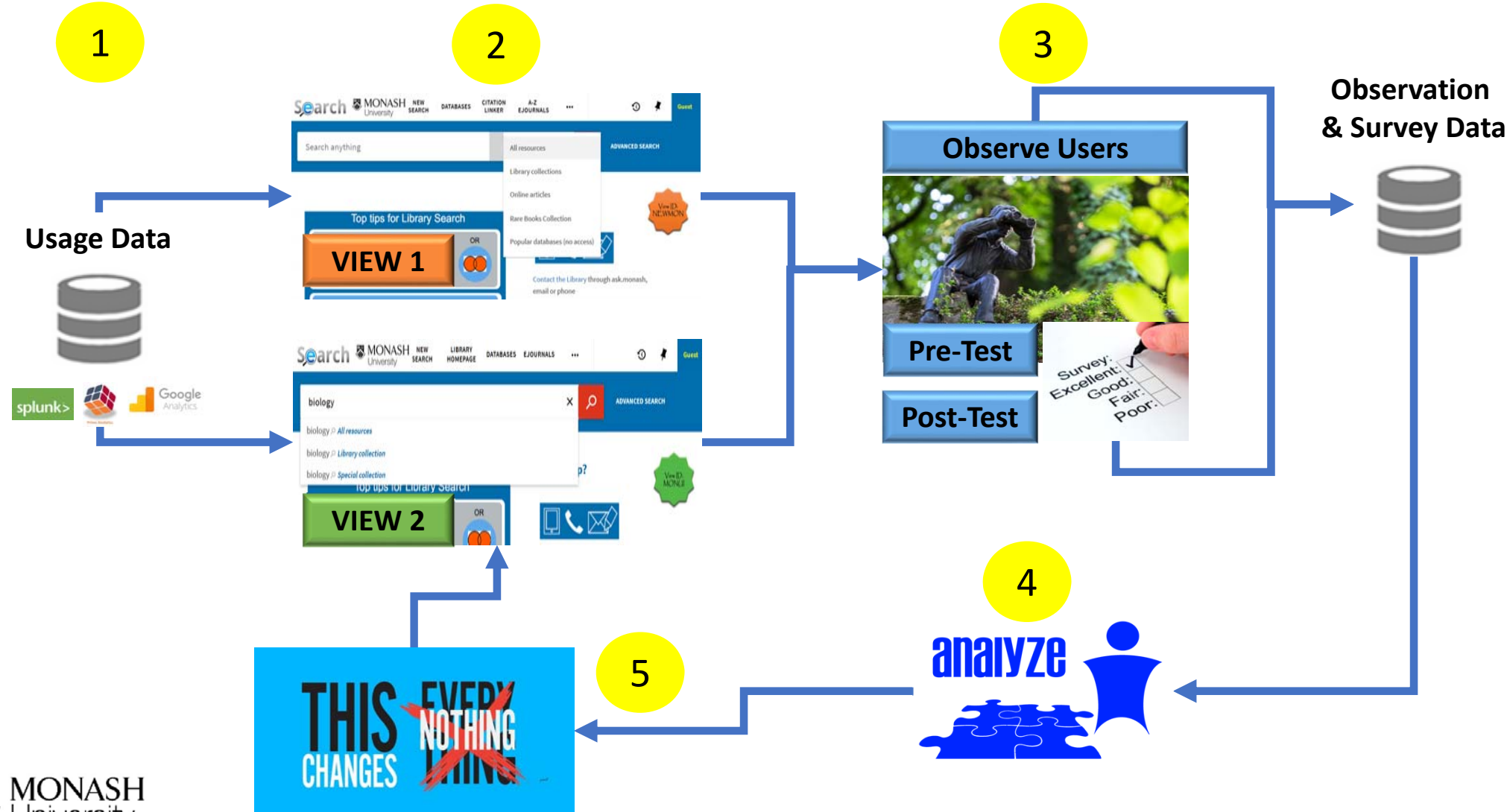


PRIMO ENVIRONMENT

- Primo since June 2010
 - Direct Hosted Back Office (can SSH),
 - 3 Alma Institutions and 1 Primo Instance with 3 Views
 - Multi-search scopes
 - Alma & PCI + 3 additional local data sources
 - Authentication: SAML Okta (Multi-factor authentication)
- 2.1M Electronic + 1.6M Print Bibliographic Records
- 78K Students, 17K Staff, 206 Library staff
- 4.1M physical visits to the Library



PRIMO UX TESTING PROCESS



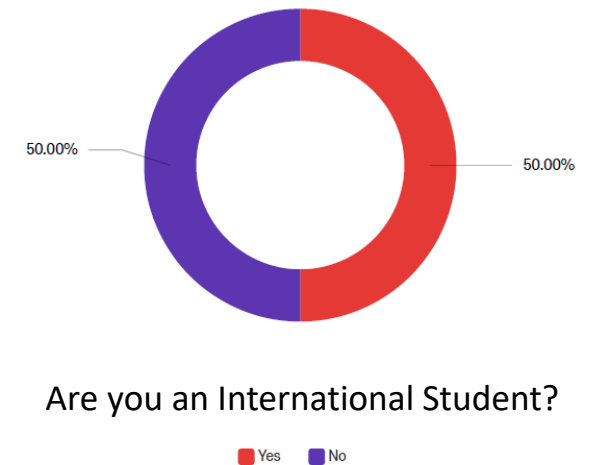
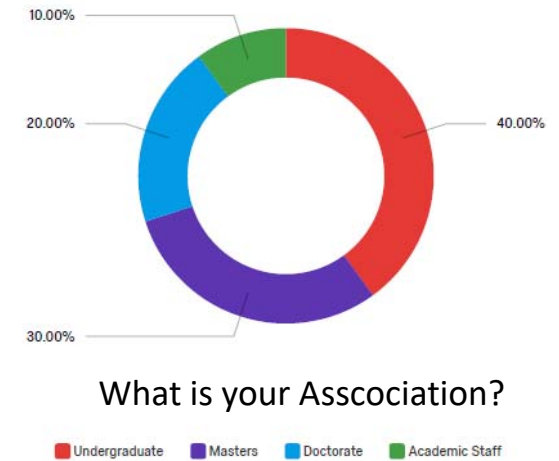
VENUE OF UX TESTING SESSION



The observation setup at the [Monash University Innovation Studio](#) & [Monash University Caulfield Library](#).

USER DEMOGRAPHICS

- Faculties
- Year levels
- Local and International Students
- English as their first language
- Years at Monash



UX TESTING KITS:

- **Test scenarios:**
 - Known title
 - Subject
 - Journal article
 - Resource Type
 - Call Number
 - Availability
- Qualtrics **Pre-testing** Survey
- Qualtrics **Post-testing** Survey
- **User Consent Form**
- **Observers questions**



PRE-TESTING SURVEY



Q. WHERE TO SEARCH FOR AUTHORITATIVE INFORMATION?

1. First preference  & discipline specific databases:



2. Then Primo: 

3. Discipline specific databases:

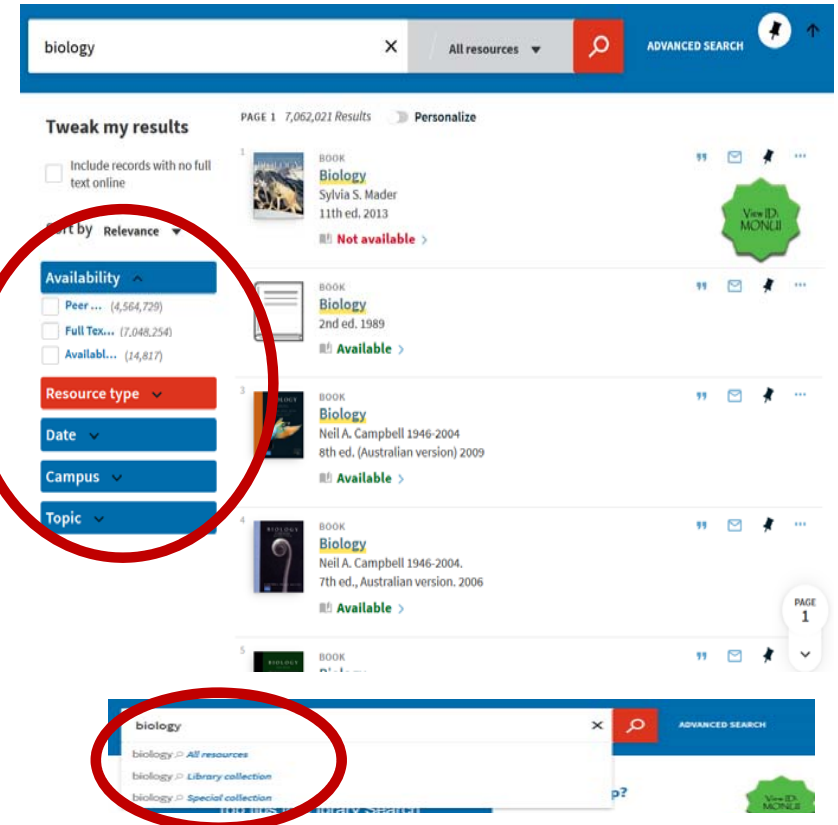
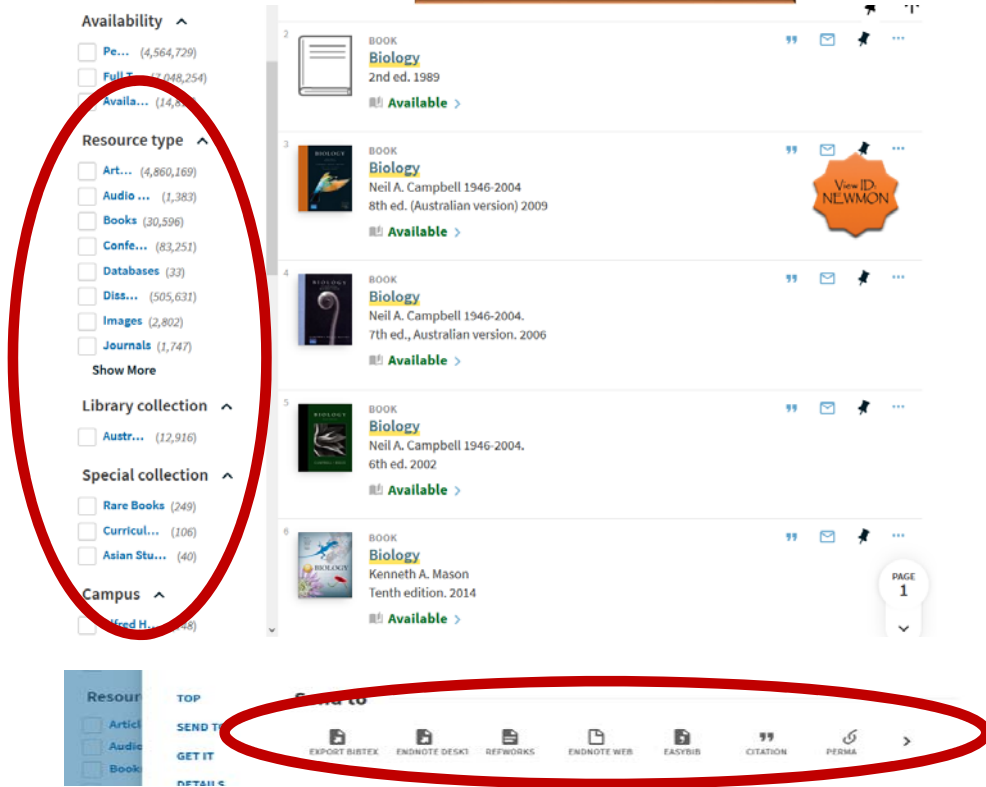


POST-TESTING SURVEY

VIEW 1

VS

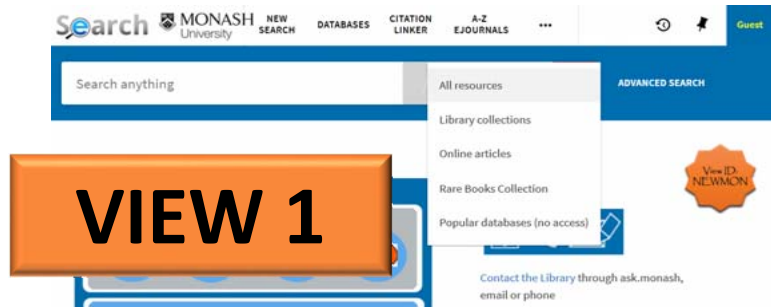
VIEW 2



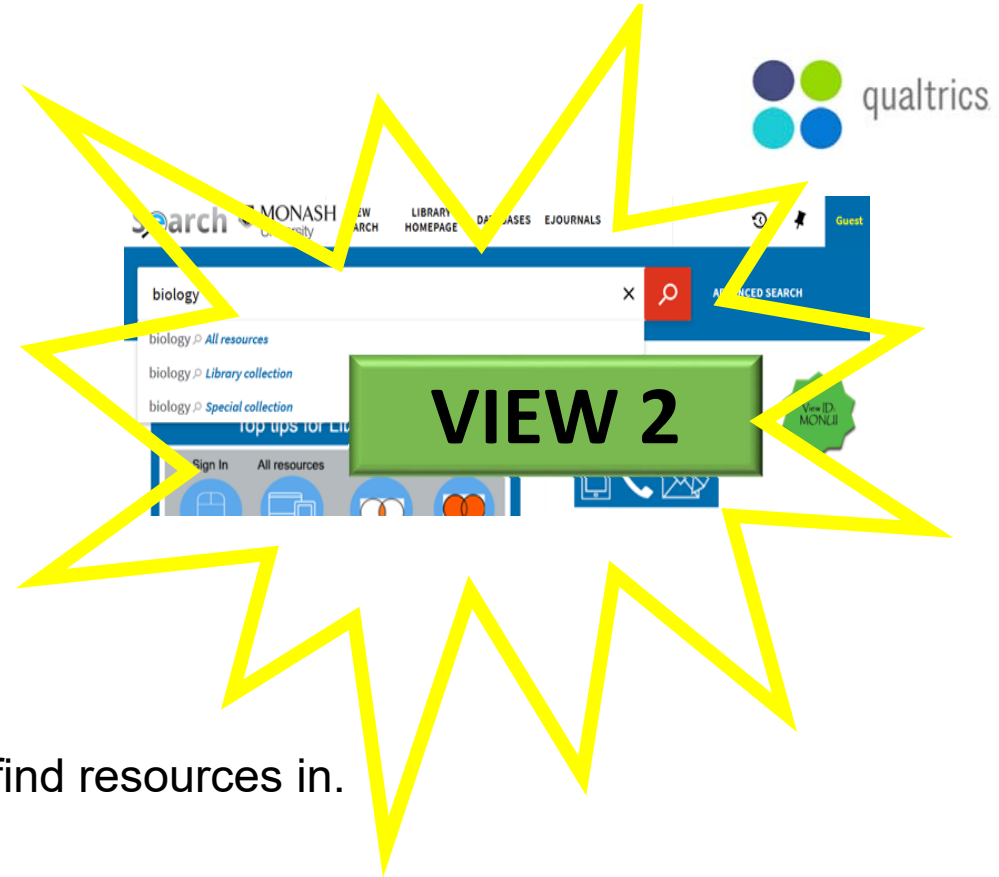
- Facets, Scopes, design similar to Classic UI

- Simplified & striped down view

POST-TESTING SURVEY



VS



Feedback on the views

- 6 users noticed the difference
- 5 users strongly agreed that **View 2 was easier** to find resources in.
- **Most useful features:**
 - Advanced search
 - Favourites;
 - and Citation Link to Styles (e.g. APA/MLA etc)



MONASH
University

QUANTITATIVE + QUALITATIVE



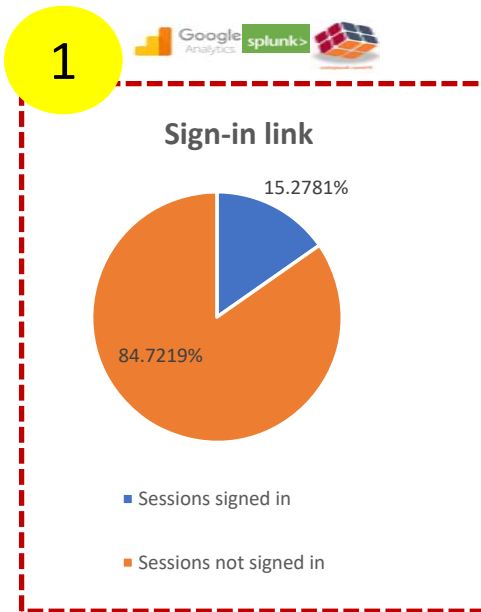
Google
Analytics




+




USAGE DATA + OBSERVATION (Sign-In)



- 2
- 
- UX Observations:**
- Users did not sign-in unless they needed too (e.g. check loans, read an article)



- 3
- 
- Recommendations:**
- Educate users to sign-in
 - Auto-login users when clicking on Primo.

MONASH University Search brought to you by the Monash University Library

Login to Search

Select a sign-in option:

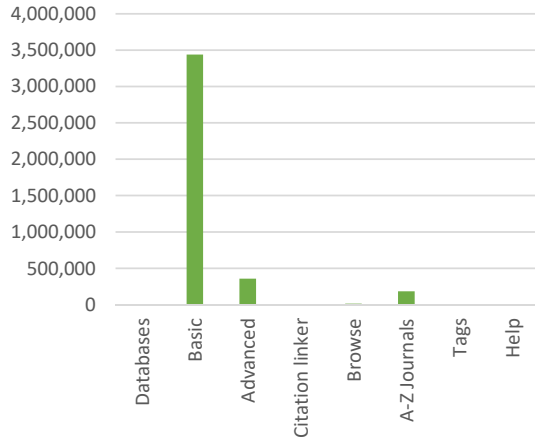
Monash Staff & Students Login
All other users login (alumni, CAVAL, etc.)
Not a member of Monash, use this link

USAGE DATA + OBSERVATION

1



Search launch Interface



2



UX Observations:

- Basic search was mostly used by users
- There were a few individuals who used Advanced Search.
- However Google Scholar is their preferred searching tool.

3



Recommendation:

- Modify the embedded search box in the Library homepage to allow multiple ways users can run searches

All collections

Journals

Databases

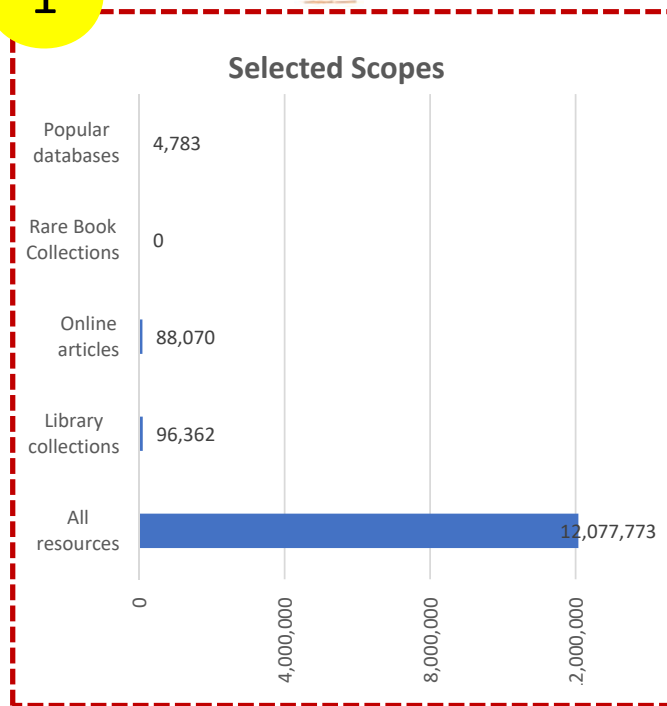
Google Scholar

Find books, articles, journals, databases and more

Go

USAGE DATA + OBSERVATION (Scope)

1



2



UX Observations:

- Most users use the default All Resources scope.
- The auto complete search box helped make the scopes visible.

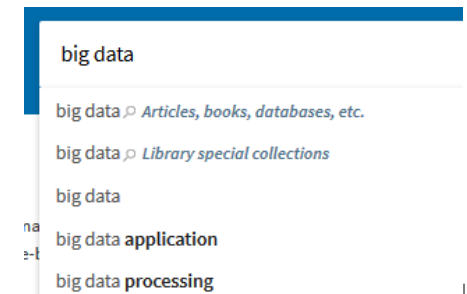


3



Recommendations:

- Use the auto complete search box to make scopes more visible
- Rename labels to make the scope clearer



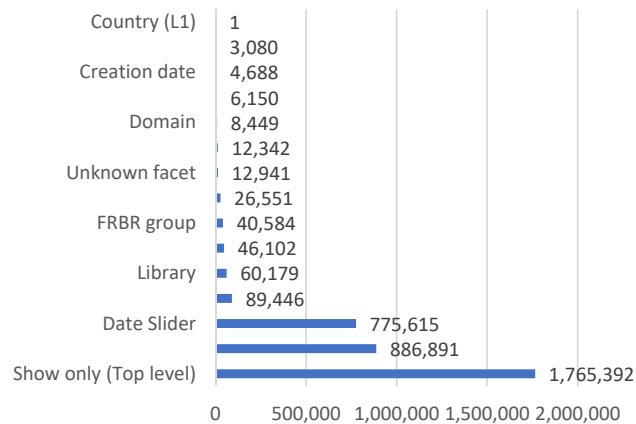
USAGE DATA + OBSERVATION (Facet)

1



Primo facets that narrow search results (*Usage logs*):

Searches refined by facet



2



UX Observations:

- Users preferred the expanded list of facets
- However facet navigation was limited

Availability ^

- ☐ Peer... (4,835,144)
- ☐ Full T... (7,540,293)
- ☐ Availa... (14,875)

Resource type ^

- ☐ Arti... (5,184,206)
- ☐ Audio V... (1,417)
- ☐ Book Chap... (93)
- ☐ Books (30,742)

3



Recommendations:

- Strip down the facet list but keep it expanded.
- Use the top 5-6 used facets.

Availability ^

- ☐ Peer Reviewed Journals (1,407,086)
- ☐ Full Text Online (5,130,468)
- ☐ Available in the Library (396)
- ☐ Open Access

Resource type v

Publication Date v

Campus v

Topic v

Unique collection v

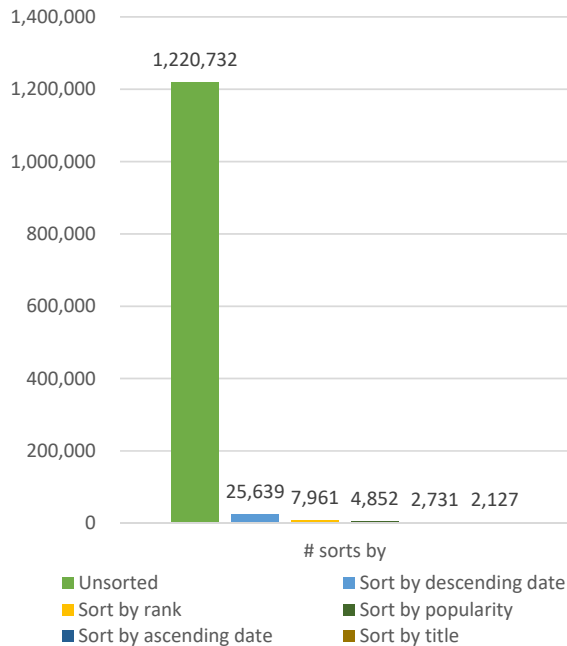
Language v

USAGE DATA + OBSERVATION (Sorting)

1



Primo sort-by options to narrow search results (*Usage logs*)



2



UX Observations:

- Confirmed that users do not change sorting order
- Default location wasn't visible

Sort by Relevance

Available Date-newest

☐ Peer Title

☐ Full Title

☐ Available Date-oldest

3



Recommendations:

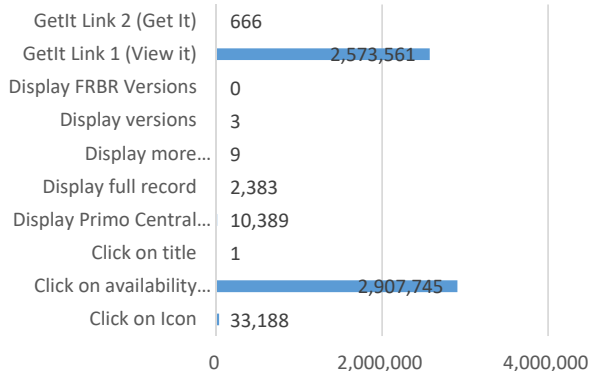
- Move the location of sort-by so it is visible
- Educate how to use sorting feature
- Understand what relevance ranking means
- Educate how to identify new materials

USAGE DATA + OBSERVATION (Availability)

1



Primo availability information (Usage logs):



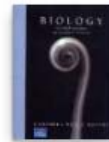
2



UX Observations:

- The lesser the clicks the better
- Have location & availability on the brief results page

3



BOOK
Biology
Neil A. Campbell 1946-2004.
7th ed., Australian version. 2006

 **Available** >

3



Recommendations:

- Display location & availability information on the same page
- Educate users about Sign-in to make better use of this function.



BOOK
Biology
Kenneth A. Mason ; Jonathan B. Losos author.; Susan R. Singer author.; Peter H. Raven author.; George B. Johnson (George Brooks), 1942-
Tenth edition.
2014

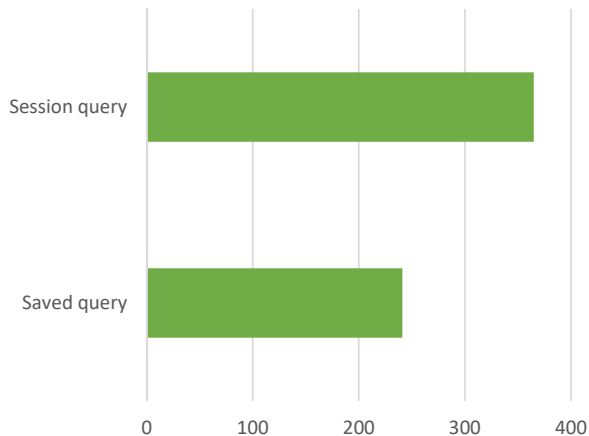
 **Available at Bundoora General Collection (570 M398 2014) and other locations** >

USAGE DATA + OBSERVATION (Saved Query)

1



Primo saved queries (Usage logs):



2



UX Observations:

- Users are not familiar with the Saved Queries & Session Searches feature.

3



Recommendation:

- Educate users on how these features can help them.

My Favorites



SAVED RECORDS

SEARCH HISTORY

☐ 1 search queries

1

biology

SCOPE: Default / All resources

20/6/2018 22:49:49

UX TESTING: OBSERVER'S PERSPECTIVE



UX TESTING (2nd ROUND)

CHANGES MADE INCLUDED:

- Location information
- Browzine plugin
- FRBR
- Normalization Rule changes particularly for search fields



UX TESTING (2nd ROUND)

CONFIRMATION OF INITIAL FINDINGS

- ✓ SIMILAR SURVEY responses to 1st round
- ✓ SIMILAR OBSERVATIONS to 1st round
- ✓ POSITIVE response to Browzine Plugin, FRBR, & Location information




UX TESTING (2nd ROUND)


Q. WHAT ATTRIBUTES DID YOU LIKE ABOUT ANY OF THE VIEWS?

The screenshot displays a library catalog interface with several facets on the left and search results on the right. Annotations with blue arrows point to specific features:

- Availability** facet: Includes checkboxes for Peer-reviewed (51,918), Full Text Online (198,767), Available in the Library (78), and Open Access.
- Resource type** facet: Includes checkboxes for Articles (118,582), Audio Visual (1,626), Book Chapters (976), and Books (2,065). A blue arrow labeled "Expanded Facets list (25%)" points to this section.
- Date** facet: Includes a range selector (From 1000 To 2018) and a "Refine" button.
- Campus**, **Topic**, and **Language** facets are also visible.
- Search Results**:
 - Result 1**: A book titled "The gold bug" by Edgar Allan Poe (1809-1849). A green box highlights the text "3 versions of this record exist. See all versions >". A blue arrow labeled "Similar version grouped" points to this box.
 - Result 2**: An article titled "PLUTO AND CHARON WITH THE HUBBLE SPACE TELESCOPE. I. MONITORING GLOBAL CHANGE AND IMPROVED SURFACE PROPERTIES FROM LIGHT CURVES" by Buie, Mw; Grundy, Wm; Young, Ef; Young, La; Stern, SA. A green box highlights the "Download Now" and "View Issue Contents" links. A blue arrow labeled "Browzine Plugin (37.5%)" points to this box.
 - Result 3**: A book titled "Wolbachia : a bug's life in another bug" by Achim Hoerauf; Ramakrishna U Rao (2007). A green box highlights the text "Available at HA General Collection (614.5552 H694W 2007) >". A blue arrow labeled "Location displayed (25%)" points to this box.

From the busy Classic User Interface

 **MONASH**
University

 **Search**

Brought to you by
Monash University Library

Guest e-Shelf My Loans Sign in

Databases Basic Advanced Citation Linker Browse A-Z ejournals Tags

big data

All resources

Go

All resources
Library collections
Online articles
Rare Books Collection

Search has a new look.
Try it now!

Personalize your results
Edit

Add page to e-Shelf

Expand results

☐ Include records with no full text online

Show only

Peer Reviewed Journals (1,395,732)
Full Text Online (5,109,799)
Available in the Library (397)

Refine results

Resource type

Articles (2,292,660)
Audio Visual (1,824)
Book Chapters (6,417)
Books (16,180)
Conference Proceedings (43,654)
Databases (2)
Dissertations (674,684)
Government documents (6,287)
More options

Unique collection

Figshare repository (26)
Asian Studies Research (4)
More options

Campus


Caulfield (176)
City - Law Chambers (1)
Clayton - Hargrave-Andrew (119)
Clayton - Matheson (140)
Offsite Store (29)


Show bX Hot Articles


Results 1 - 20 of 5,110,203 for All resources


Sorted by: Relevance


1 2 3 4 5


 ☆ **Big data**
Kuan-Ching Li author.
1st edition 2015
● Online access
View It Details Tags


 ☆ **big data**
Chandler, Daniel ; Munday, Rod
A Dictionary of Media and Communication
2 2016
● Online access
View It Details Tags


 ☆ **Big Data**
Barton, Amy J
The Journal of nursing education, March 2016, Vol.55(3), pp.123-4 [Peer Reviewed Journal]
● Online access
View It Details Tags

 ☆ **Big data**
James Kalyvas author.
1st edition 2014
● Online access
View It Details Tags

 ☆ **Big data**
2013 - present
● Online access
View It Details Tags

 ☆ **Big data**
William H. Inmon author.
1st edition 2016
● Online access
View It Details Tags

 ☆ **Big data in practice : how 45 successful companies used big data analytics to deliver extraordinary results**
Bernard Marr author.
2016 - 2016
● Available at Peninsula Library General Collection (658.0557 M358B 2016)
Details Get It Tags Virtual Browse

 ☆ **Big data commerce**
Lau, Raymond Y.K. ; Zhao, J. Leon ; Chen, Guoqing ; Guo, Xunhua
Information & Management, December 2016, Vol.53(8), pp.929-933 [Peer Reviewed Journal]


View all versions

Citations Cited by

View 2 versions

View all versions

To the new simplified User Interface

 **MONASH**
University

NEW SEARCH DATABASES A-Z E-JOURNALS FIND CITATION LIBRARY HOMEPAGE

big data

Articles, books, databases, etc.

ADVANCED SEARCH

Sign in to access articles, see more search results and to request items. [Sign in](#) | [DISMISS](#)

Refine my results

☐ Include records with no full text online

Availability

☐ Peer Reviewed Journals (1,235,752)
☐ Full Text Online (5,125,735)
☐ Available in the Library (537)
☐ Open Access

Resource type

☐ Articles (2,235,690)
☐ Newspaper Articles (1,235,042)
☐ Dissertations (874,454)
☐ Text Resources (75,846)
☐ Reviews (32,147)
[Show More](#)

Publication Date

Campus

Topic


Unique collection

Language

PAGE 1 5,110,203 Results Personalize


Sort by Relevance

1

 **BOOK**
Big data
Kuan-Ching Li author.
1st edition 2013
[Online access](#)


11

2

 **REFERENCE ENTRY**
big data
Elliot, Mark; Fairweather, Ian; Olsen, Wendy; Pampalis, Marie
1 2016
A Dictionary of Social Research Methods
[Online access](#)


11

3

 **ARTICLE / multiple sources exist. see all**
Big Data
Barton, Amy J
The Journal of nursing education, March 2016, Vol.55(3), pp.123-4
[PEER REVIEWED](#)
[Online access](#)
[View Issue Contents](#)


11

4

 **BOOK**
Big data
James Kalyvas author.
1st edition 2014
[Online access](#)


11

5

 **JOURNAL**
Big data
2013 - present
[Online access](#)
[View Journal Contents](#)


11

6

 **VIDEO**
Big data
William H. Inmon author.
1st edition 2016
[Online access](#)

11


7

 **MULTIPLE VERSIONS**
Big data in practice : how 45 successful companies used big data analytics to deliver extraordinary results
Bernard Marr author.

[2 versions of this record exist. See all versions](#)


11

8

 **ARTICLE / multiple sources exist. see all**
Big data commerce
Lau, Raymond Y.K.; Zhao, J. Leon; Chen, Guoqing; Guo, Yunhua
Information & Management, December 2016, Vol.29(8), pp.929-933
++ big data-enriched hybrid research methodology can... strategies. Although big data is considered a new form... called big data revolution, which triggers++
[PEER REVIEWED](#)
[Download Now](#) [Online access](#)
[View Issue Contents](#)

11

9

 **ARTICLE / multiple sources exist. see all**
A Fast Projection-Based Algorithm for Clustering Big Data.(Report)
Wu, Yun; He, Zhiquan; Lin, Hao; Zheng, Yufei; Zhang, Jingfen; Xu, Dong
Interdisciplinary Sciences: Computational Life Sciences, 2019, Vol.11(3), p.360(7)
[PEER REVIEWED](#)
[Download Now](#) [Online access](#)
[View Issue Contents](#)

11

PAGE 1

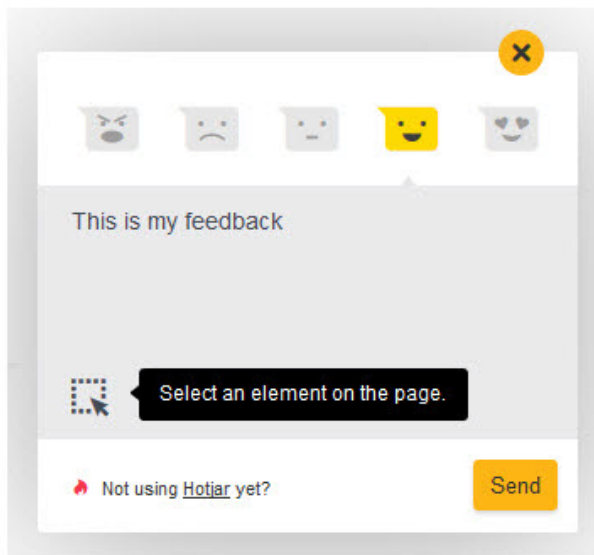
IMPLEMENTATION PROCESS



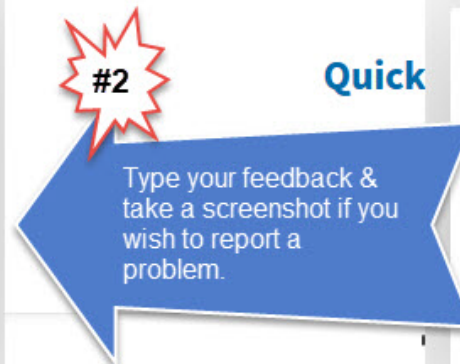
- BETA: Dec & Jan
- PROD: Feb 2019
- Roadshows: Jan & Feb 2019
- Monthly Communications via Staff Blog

POST-IMPLEMENTATION FEEDBACK

- Feedback from users from: Dec 2018 to May 2019 via Hotjar on Primo New UI

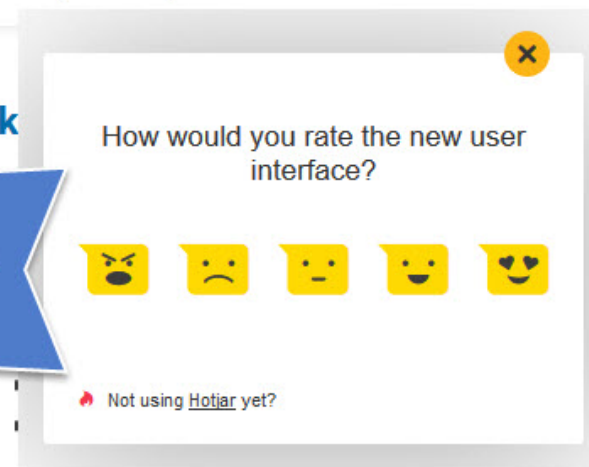


A screenshot of the Hotjar feedback form. At the top, there are five emoji icons: angry, sad, neutral, happy, and very happy. Below them is a text input field with the placeholder text "This is my feedback". At the bottom left, there is a small icon of a cursor pointing at a box, with the text "Select an element on the page." next to it. At the bottom right, there is a yellow "Send" button. At the bottom left, there is a small red flame icon and the text "Not using Hotjar yet?".



Contact the Library through
ask.monash, email or phone

Quick



A screenshot of the Hotjar rating interface. At the top, it says "How would you rate the new user interface?". Below this are five emoji icons: angry, sad, neutral, happy, and very happy. At the bottom left, there is a small red flame icon and the text "Not using Hotjar yet?".



Feedback

HOTJAR LIMITATIONS:



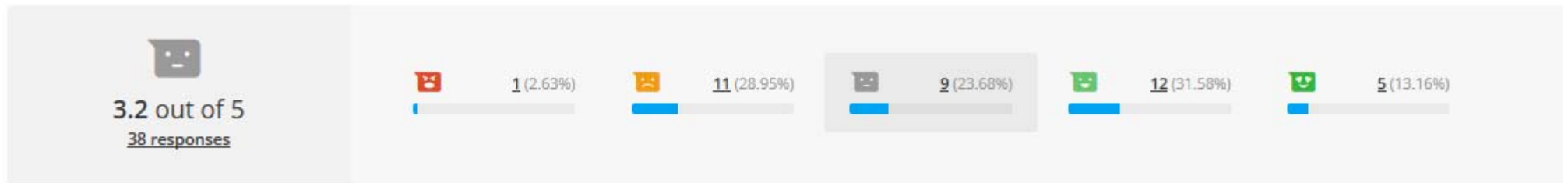
- Visitors not using one of the [supported browsers](#)
- Visitors with **disabled JavaScript**
- Visitors that have [opted out](#) from our opt-out page.
- Visitors with [disabled cookies](#).
- Visitors using **Private mode** in some browsers, such as Firefox and Safari - or when localStorage and sessionStorage are not available
- Visitors who run browser **plugins such as Ghostery, unlock or Adblock** which explicitly excludes them from loading tracking scripts such as ours
- Visitors that have **DO NOT TRACK enabled in their browser**
- Visitors have their [IP blocked](#) within the Hotjar settings
- Visitors live in country, like UAE, where **government blocks** the use of Hotjar.
- **NOTE:** Data is stored in EU & are in full commitment to [GDPR Compliance](#)



BETA RELEASE FEEDBACK



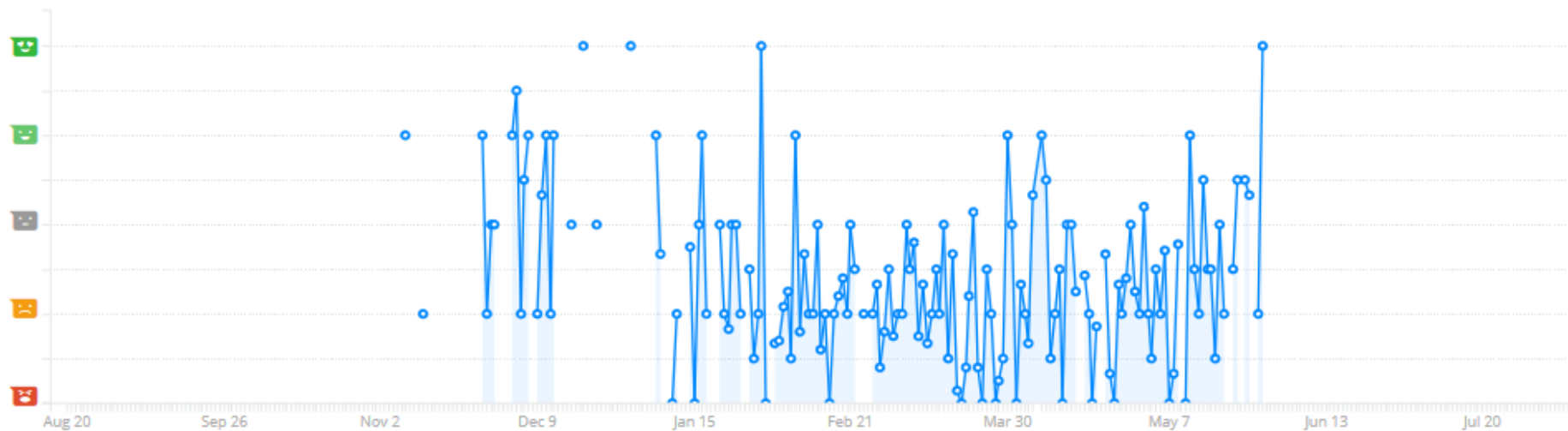
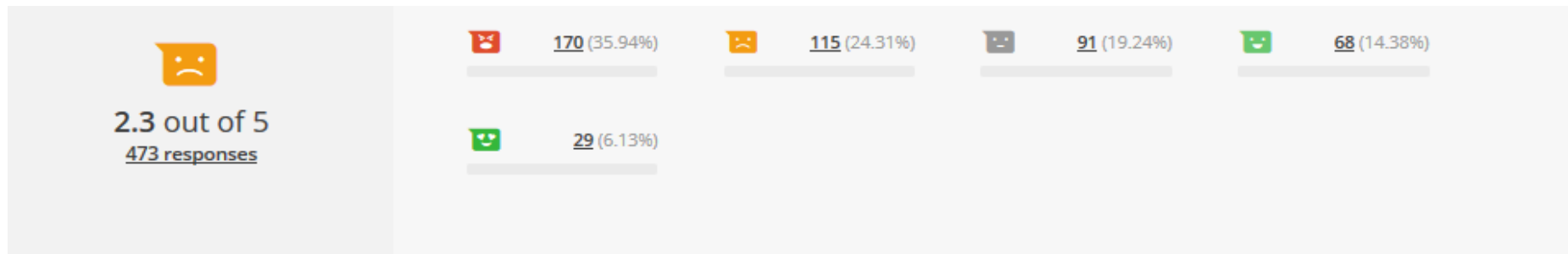
User feedback collected through HotJar from Dec 2018 to Jan 2019.



PROD FEEDBACK



User feedback collected through HotJar from Dec 2018 to early May 2019.





INCOMING FEEDBACK FEATURE

/primo-explore/search?qu...



“ too slow! Slowness makes it feel clunky. Not obvious how to delete from favourites.... ”

/primo-explore/search?sor...



“ What is with "library special collections" as a drop down option? How confusing. How will a patron be able to differentiate between rare books (now special collections), and all the other special collections available at Monash (which aren't searchable). ”

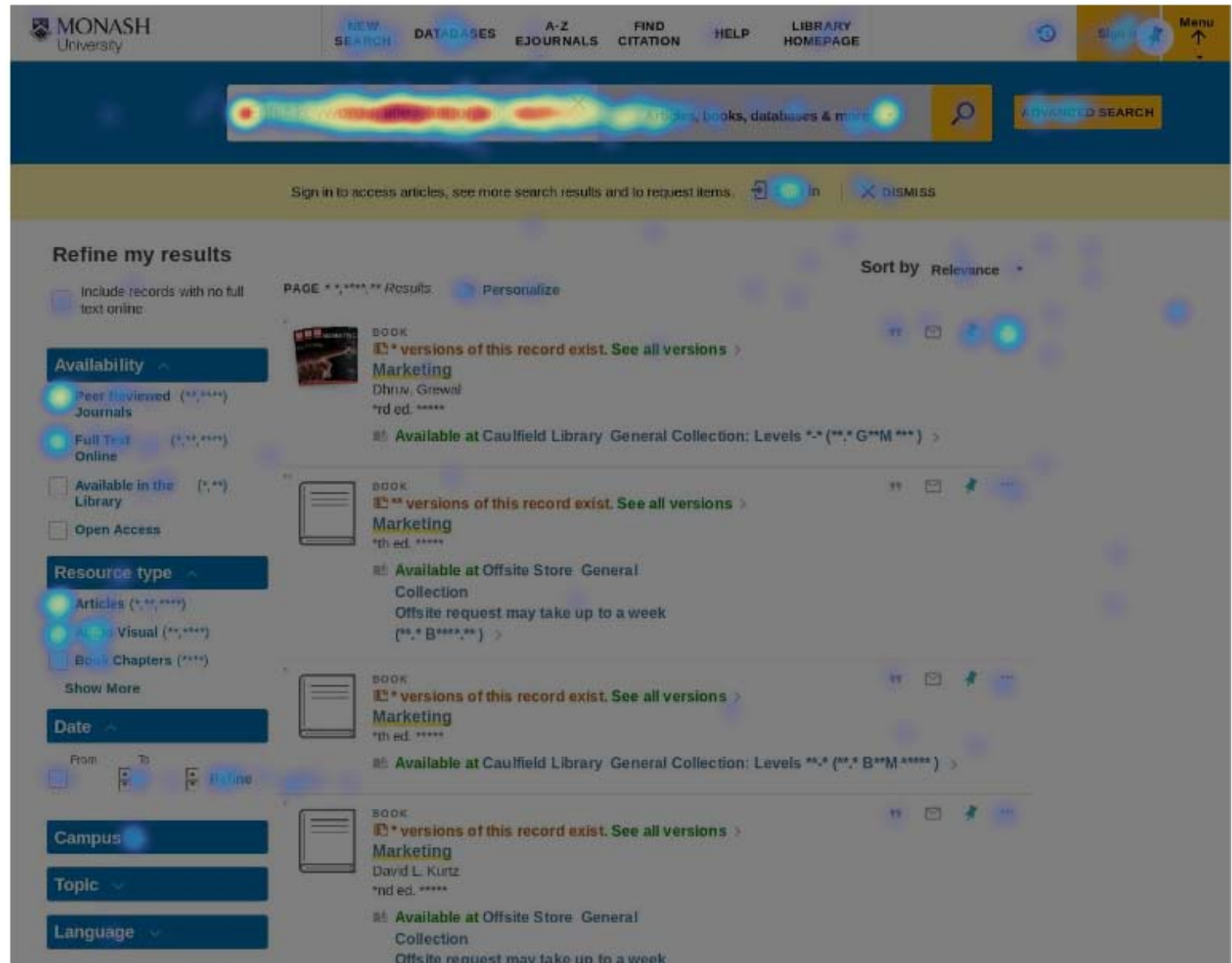
/primo-explore/search?vid...



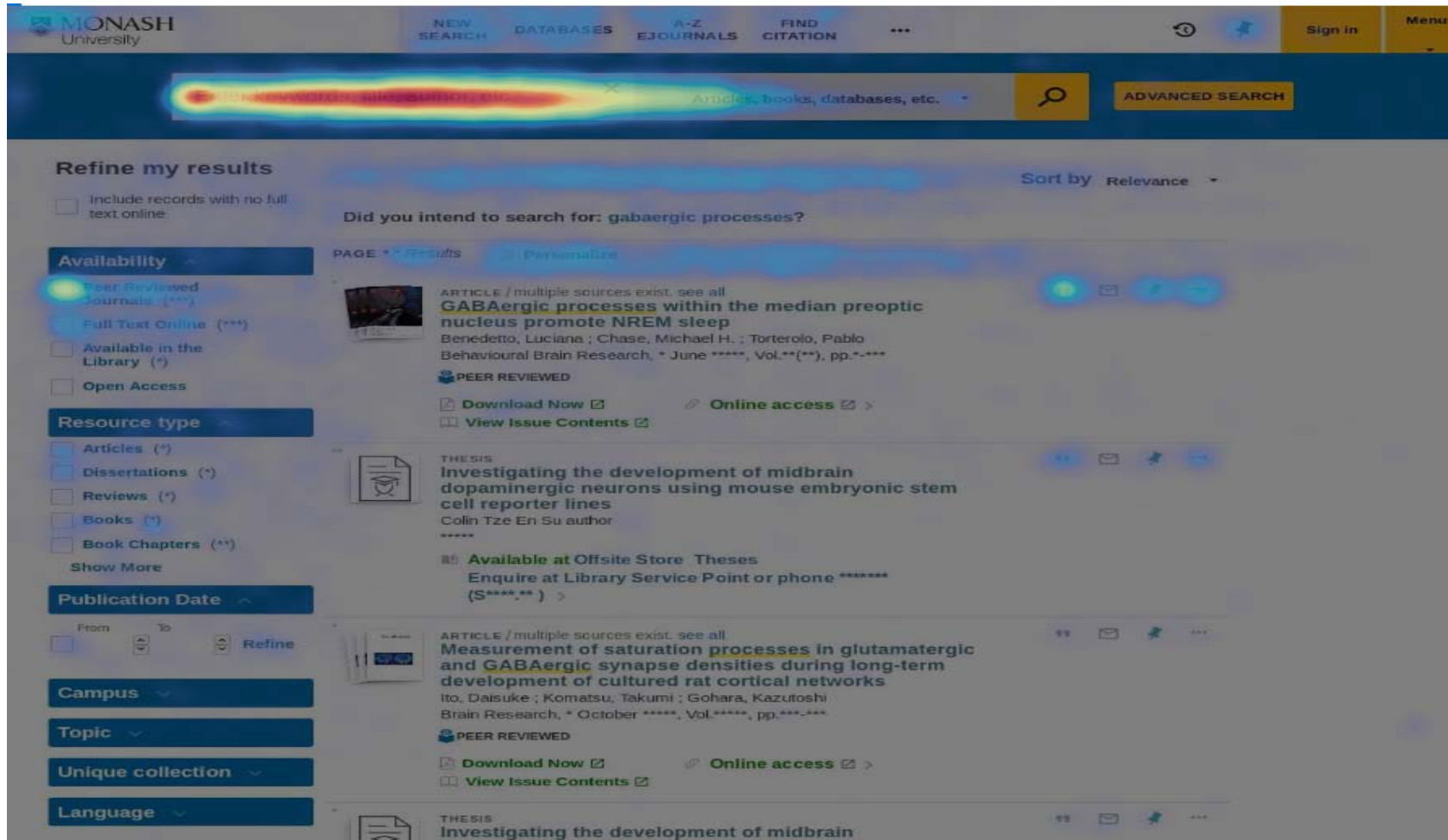
“ Could you please change eBook to ebook in the drop down option: "Books, eBooks, multimedia & more" It doesn't need an upper case B as none of the other options have an initial upper case apart from the words at the beginning of the phrases. ”



HEATMAPS FEATURE



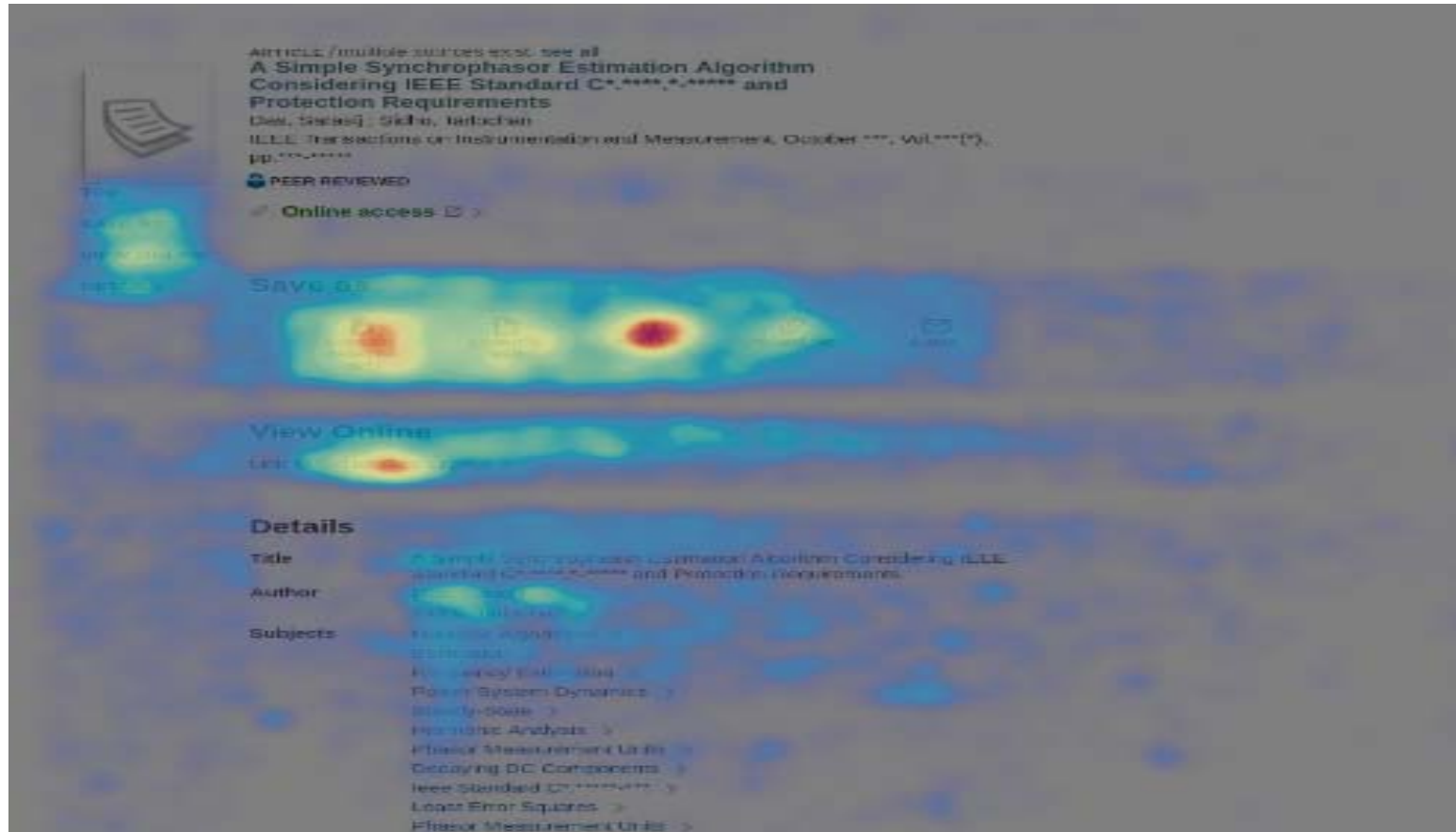
SEARCHING



Heatmap showing mouse movements.



FULL DISPLAY



Heatmap showing mouse movements.

FAVOURITES



Heatmap showing mouse movements.



CITATION LINKER



The image shows a web form titled "Fetch item (Citation Linker)" with a heatmap overlay indicating mouse movements. The heatmap uses a color scale from blue (low activity) to red (high activity). The highest activity is concentrated in the "Title" field, which is highlighted in red. Other fields like "Author", "ISSN", and "Year" also show some activity, indicated by yellow and green colors. The "Submit" button at the bottom right is also highlighted in yellow. The form includes a "RESET" button at the bottom left and a "SUBMIT" button at the bottom right. The form fields are arranged in two columns, with a "CONTENTS" dropdown menu on the right side.

NEW SEARCH DATABASES A-Z EJOURNALS FIND CITATION ...

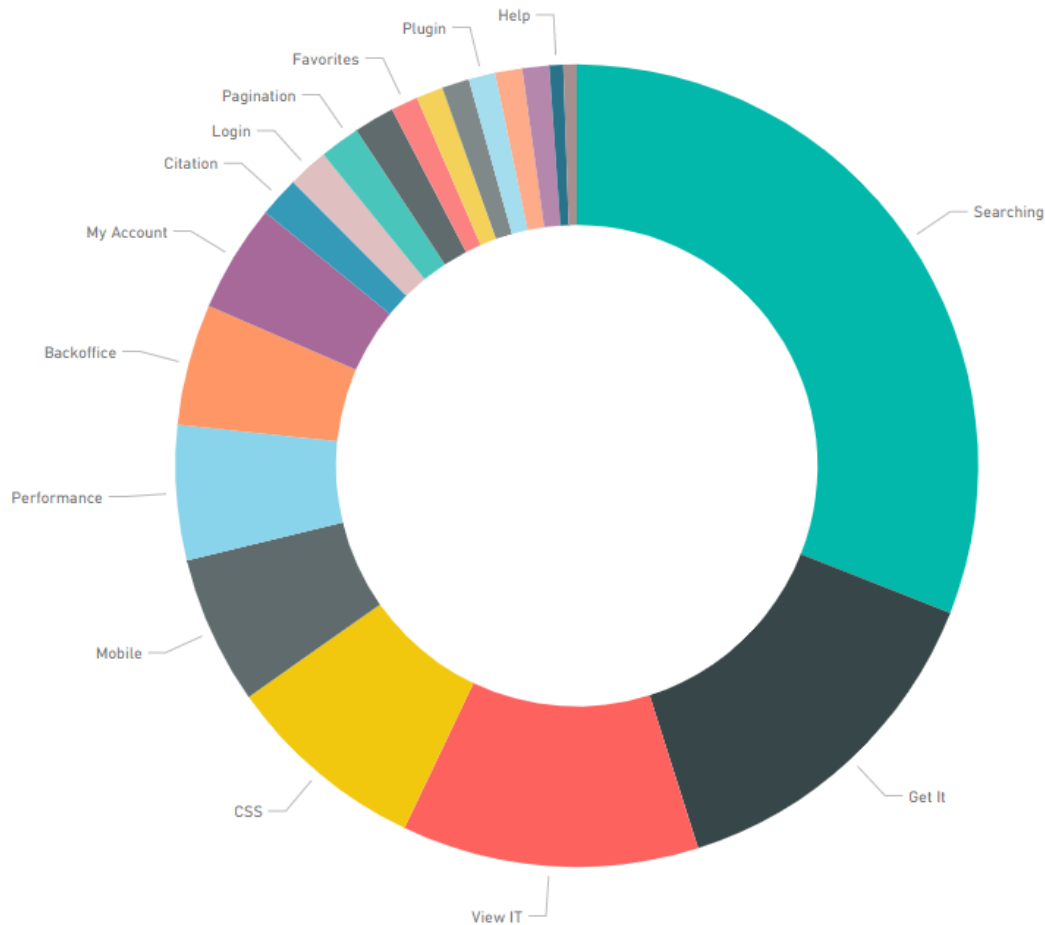
Fetch item (Citation Linker)

Find a specific journal article, journal or book by citation information.
For best results, include a title, ISSN, ISBN, DOI or PMID.

☒ Article ☐ Book ☐ Journal



Feedback themes



Themes	Total Count
Searching	57
Get It	26
View IT	22
CSS	15
Mobile	11
Performance	10
Backoffice	9
My Account	8
Citation	3
Login	3
Pagination	3
Scope	3
Favorites	2
FRBR	2
Full Display	2
Plugin	2
Time Out	2
Virtual Browse	2
Help	1
Metadata - PCI	1

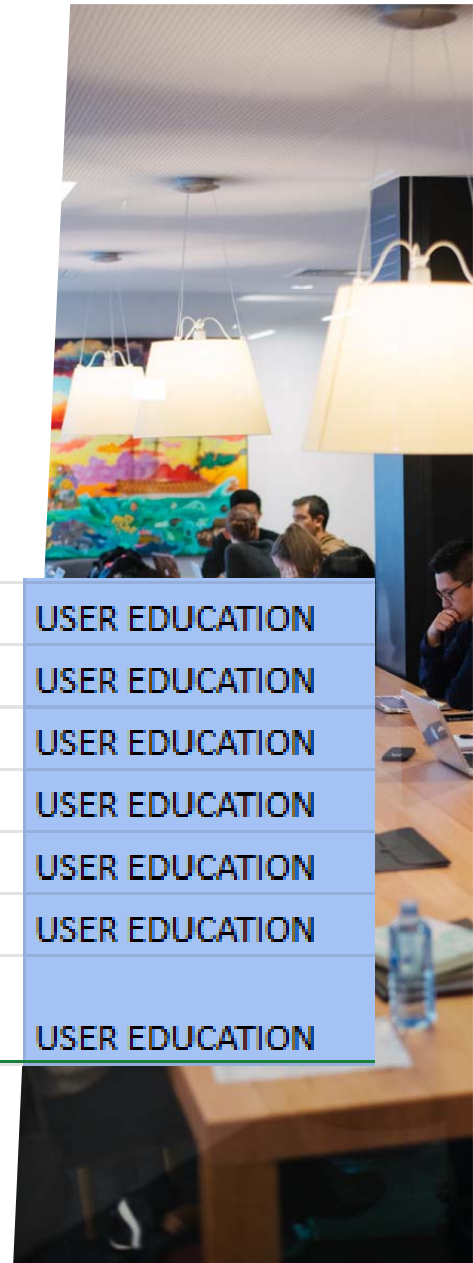


SAMPLE FEEDBACK

Status	Total Count
No Action	269
Reviewed Done	58
User Education	53
Reviewed No Action	46
Review Further	21
Reviewed Action Required	16
System Limitation	6



2	Having difficulty accessing my loans record	USER EDUCATION
1	Where's the "request purchase" button?	USER EDUCATION
1	where can I place my request?	USER EDUCATION
1	where is docdel hidden?	USER EDUCATION
1	I can't request to on hold the books. I don't know what happened	USER EDUCATION
1	not user friendly, doesn't even have a renew button	USER EDUCATION
2	I have a lot of trouble finding a book - there may be 50 reviews in journals but separating books from journal articles is awkward	USER EDUCATION



REFLECTIONS



Library expectations of Primo

a **SHOWCASE** for Library
resources

SIMPLE to search

provide **INTUITIVE** search
results

offer a **SEAMLESS** experience
from searching to access

EMPOWER our users



If Primo doesn't meet our users needs



They'll look for a solution outside of Primo & the Library



CONTACT US:

Megan.Lee@monash.edu

Rachelle.Orodio@monash.edu

