What do Primo users want?

or finding evidence to understand user behaviour in Primo

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Monash University

IGeLU 2019 Conference (27-29 August 2019) #igelu2019
### PROJECT DRIVERS

<table>
<thead>
<tr>
<th>Most important</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library staff provide accurate answers to my enquiries</td>
<td>1</td>
</tr>
<tr>
<td>I can get wireless access in the Library when I need to</td>
<td>2</td>
</tr>
<tr>
<td>I can get help from Library staff when I need it</td>
<td>3</td>
</tr>
<tr>
<td><strong>The Library Search facility enables me to find Library resources quickly</strong> (PRIMO)</td>
<td>4</td>
</tr>
<tr>
<td>Access to Library information resources has enabled me to perform better in my studies</td>
<td>5</td>
</tr>
<tr>
<td>Online resources (e.g. ejournals, databases, ebooks) meet my learning and research needs</td>
<td>6</td>
</tr>
<tr>
<td>When I am away from campus I can access the Library resources and services I need</td>
<td>9</td>
</tr>
</tbody>
</table>
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
<table>
<thead>
<tr>
<th>Month</th>
<th>Preparation</th>
<th>Analysis</th>
<th>Communication</th>
<th>Testing</th>
<th>Maintenance</th>
<th>Development</th>
<th>RELEASE</th>
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<tbody>
<tr>
<td>October</td>
<td>Build Primo beta test environments</td>
<td>Analyse past user behaviour log data</td>
<td>Report on Primo user patterns in log analysis to SDS &amp;</td>
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<tr>
<td>November</td>
<td>Build Primo beta test environments</td>
<td>Develop user testing scenarios</td>
<td>Install November Primo Service Pack</td>
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<td>Build Primo beta test environments</td>
<td>Develop user testing scenarios</td>
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<td>2018 January</td>
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<tr>
<td>February</td>
<td>Test and evaluate third party plug-in</td>
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<tr>
<td>March</td>
<td>Test and evaluate third party plug-in</td>
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</tr>
<tr>
<td>April</td>
<td>Analyse First round of user testing</td>
<td>Report on first round user testing to SDS &amp;</td>
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<tr>
<td>May</td>
<td>Analyse Second round of user testing</td>
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<tr>
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<td>Analyse Second round of user testing</td>
<td>Install May Primo Service Pack</td>
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<tr>
<td>July</td>
<td>Analyse Third round of user testing</td>
<td></td>
<td>Install May Primo Service Pack</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>August</td>
<td>Analyse Fourth round of user testing</td>
<td>Report on Fourth round of user testing to Primo UI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>Test and Primo User Interface in Innovation Studio</td>
<td></td>
<td>Update Primo configuration based on Second round</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>October</td>
<td></td>
<td></td>
<td>Update Primo look &amp; Feel based on Innovation</td>
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<td>November</td>
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<td>2019 January</td>
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<td>February</td>
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</tbody>
</table>
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/y5k4nznr4
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

Search launch Interface

Selected Scopes

- Popular databases: 4,783
- Online articles: 88,070
- Library collections & Rare Books: 96,362
- All resources: 12,077,773

Source Primo analytics
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
Narrowing by facets

Refining search results by facets

- Topic: 20,733
- Top level: 292,942
- Resource Type: 189,317
- Local 02 (SCRR): 504
- Library: 17,578
- Language: 6,786
- Genre: 737
- Date Slider: 114,893
- Creation Date: 398
- Collection: 1,613
- Author: 1,380

Source Primo analytics
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

Browse searches

- Browse authors
- Browse generic call numbers
- Browse page
- Browse related records
- Browse subjects
- Browse titles
- Browse Dewey call numbers
- Browse LC call numbers
- Browse SUDOC call numbers
- Browse NLM call numbers

Enrichment linking

- Additional link
- Link to TOC
- Link to Union catalog
- bX Hot Articles

Lateral linking

- Lateral Linking – Author
- Lateral Linking – Local Field 30 (Check with Rachelle)
- Lateral Linking – Subject

Source Primo analytics
Personalise search results

Tags & Reviews

- Add review
- Add tag

Use My Account
- Requests
- Personal Settings
- Loans
- Go to My Account (Deep Link)
- Go to My Account
- Fine and Fees
- Blocks and Messages

Use personal profile
- Remove personalized results profile
- Update Personalized Results Profile

Source Primo analytics
Reusing search results

Export citations

- eMail
- Remove from eShelf
- RefWorks
- RIS Export
- Print
- EndNote Web
- EasyBIB
- Delicious
- Citation

Save session or Saved query

- Session query
- Saved query

Deep link & Permalink

- Permalink
- Deep Link

Add eShelf

- Save page to eShelf
- Save to eShelf (X-Service)
- Save to eShelf (Web Service)

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

- **Google discovery**: primary users, first year undergraduates
  - **Primo discovery**: primary users, undergraduates
  - **Database discovery**: primary users, undergraduates, postgraduates & researchers
  - **Text & Data mining**: primary users, postgraduates & researchers

- **Google Scholar**
  - **ProQuest**
  - **MEDLINE**
  - **ExLibris Primo**
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

1. Usage Data

2. Pre-Test
   - Observe Users
     - Survey Data

3. Post-Test

4. Analyze

5. THIS CHANGES EVERYTHING
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

What is your Association?

Are you an International Student?
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

[link](https://tinyurl.com/y4fgwhhx)
PRE-TESTING SURVEY

Q. WHERE TO SEARCH FOR AUTHORITATIVE INFORMATION?

1. First preference & discipline specific databases:

   - Google Scholar
   - ProQuest
   - ScienceDirect
   - EBSCO
   - MEDLINE

2. Then Primo:

3. Discipline specific databases:

   - MEDLINE
   - ProQuest
   - EBSCO
   - ScienceDirect
POST-TESTING SURVEY

VIEW 1

• Facets, Scopes, design similar to Classic UI

VIEW 2

• Simplified & striped down view
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)
QUANTITATIVE + QUALITATIVE
**USAGE DATA + OBSERVATION (Sign-In)**

1. **Sign-in link**
   - Sessions signed in: 15.2781%
   - Sessions not signed in: 84.7219%

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

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

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

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

Recommendations:

- Use the auto complete search box to make scopes more visible.
- Rename labels to make the scope clearer.
Primo facets that narrow search results (*Usage logs*):

<table>
<thead>
<tr>
<th>Facet</th>
<th>Total Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country (L1)</td>
<td>17,653,392</td>
</tr>
<tr>
<td>Creation date</td>
<td>26,584</td>
</tr>
<tr>
<td>Domain</td>
<td>60,179</td>
</tr>
<tr>
<td>Unknown facet</td>
<td>89,446</td>
</tr>
<tr>
<td>FRBR group</td>
<td>46,102</td>
</tr>
<tr>
<td>Library</td>
<td>60,179</td>
</tr>
<tr>
<td>Date Slider</td>
<td>89,446</td>
</tr>
<tr>
<td>Show only (Top level)</td>
<td>50,000</td>
</tr>
</tbody>
</table>

**UX Observations:**
- Users preferred the expanded list of facets
- However facet navigation was limited

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

**Availability**
- Peer... (4,835,144)
- Full T... (7,540,293)
- Available... (14,875)

**Resource type**
- Arti... (5,184,206)
- Audio V... (1,417)
- Book Chap... (93)
- Books (30,742)
Primo sort-by options to narrow search results (Usage logs)

UX Observations:
- Confirmed that users do not change sorting order
- Default location wasn’t visible

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
Primo availability information (Usage logs):

- GetIt Link 2 (Get It): 666 clicks, 2,573,561 requests
- GetIt Link 1 (View It): 2,383 clicks, 9 requests
- Display FRBR Versions: 10,389 clicks
- Display versions: 3,318 clicks
- Display more...: 9,318 clicks
- Display full record: 3,318 clicks
- Display Primo Central...: 2,383 clicks
- Click on title: 2,383 clicks
- Click on availability...: 10,389 clicks
- Click on icon: 33,188 clicks

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

Recommendations:
- Display location & availability information on the same page
- Educate users about Sign-in to make better use of this function.
Primo saved queries (Usage logs):

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

Recommendation:
- Educate users on how these features can help them.
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?
From the busy Classic User Interface
To the new simplified User Interface
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
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 2010.

3.2 out of 5
38 responses
PROD FEEDBACK

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

2.3 out of 5
473 responses
INCOMING FEEDBACK FEATURE

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

“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).”

“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
Heatmap showing mouse movements.
Heatmap showing mouse movements.
Heatmap showing mouse movements.
Heatmap showing mouse movements.
Feedback themes

<table>
<thead>
<tr>
<th>Themes</th>
<th>Total Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Searching</td>
<td>57</td>
</tr>
<tr>
<td>Get It</td>
<td>26</td>
</tr>
<tr>
<td>View IT</td>
<td>22</td>
</tr>
<tr>
<td>CSS</td>
<td>15</td>
</tr>
<tr>
<td>Mobile</td>
<td>11</td>
</tr>
<tr>
<td>Performance</td>
<td>10</td>
</tr>
<tr>
<td>Backoffice</td>
<td>9</td>
</tr>
<tr>
<td>My Account</td>
<td>8</td>
</tr>
<tr>
<td>Citation</td>
<td>3</td>
</tr>
<tr>
<td>Login</td>
<td>3</td>
</tr>
<tr>
<td>Pagination</td>
<td>3</td>
</tr>
<tr>
<td>Scope</td>
<td>3</td>
</tr>
<tr>
<td>Favorites</td>
<td>2</td>
</tr>
<tr>
<td>FRBR</td>
<td>2</td>
</tr>
<tr>
<td>Full Display</td>
<td>2</td>
</tr>
<tr>
<td>Plugin</td>
<td>2</td>
</tr>
<tr>
<td>Time Out</td>
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</tr>
<tr>
<td>Virtual Browse</td>
<td>2</td>
</tr>
<tr>
<td>Help</td>
<td>1</td>
</tr>
<tr>
<td>Metadata - PCI</td>
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## SAMPLE FEEDBACK

<table>
<thead>
<tr>
<th>Status</th>
<th>Total Count</th>
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</thead>
<tbody>
<tr>
<td>No Action</td>
<td>269</td>
</tr>
<tr>
<td>Reviewed Done</td>
<td>58</td>
</tr>
<tr>
<td>User Education</td>
<td>53</td>
</tr>
<tr>
<td>Reviewed No Action</td>
<td>46</td>
</tr>
<tr>
<td>Review Further</td>
<td>21</td>
</tr>
<tr>
<td>Reviewed Action Required</td>
<td>16</td>
</tr>
<tr>
<td>System Limitation</td>
<td>6</td>
</tr>
</tbody>
</table>

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

*User Education*
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:

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