



Mapping Book Locations on Bookshelves through Search Results



By Werayuth Charoenruengkit, Ph.D.
Department of Computer Science
Srinakharinwirot University, Thailand
werayuth_at_g.swu.ac.th

Agenda

- Background information about SWU and the Libraries
- Bookshelf Challenge
- Solution
- Summary





Srinakharinwirot University (SWU) : Thailand



- Founded in 1949
- the first upper-education institution focusing on teacher training
- 17 faculties in 2 campuses: Bkk and Ongkharak
- Approx 30K students



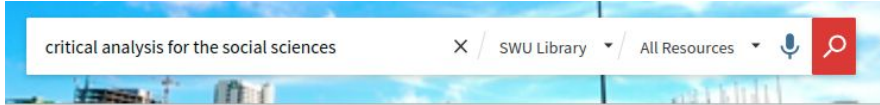
SWU library

- Two library locations
- Approx. 400k books
- On-premise server running Aleph and Primo
- Digital resources using dSpace, OJS, Ebooks platforms
- Website: <https://lib.swu.ac.th/>

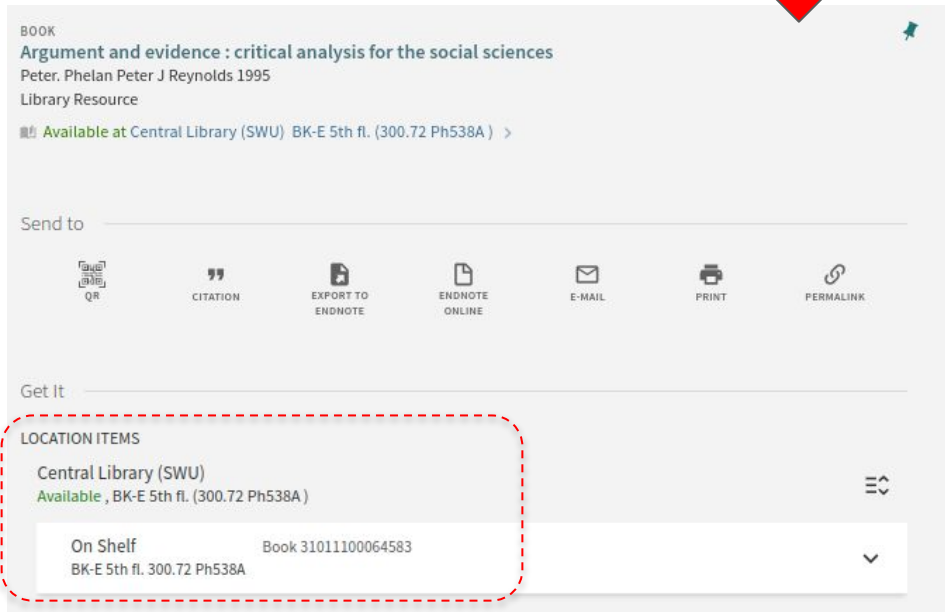
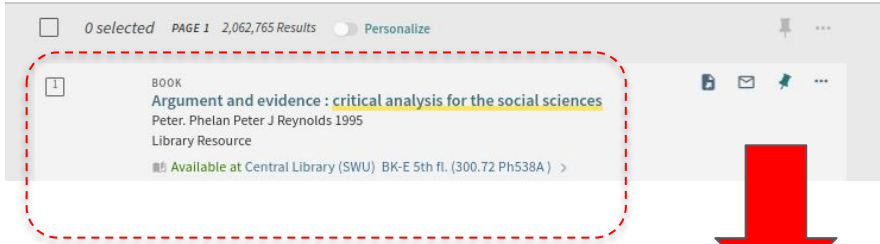




Challenge



Sign in to get complete results and to request items [Sign in](#) [DISMISS](#)



- Users find it difficult to locate books using the info from the research results.
- No simple way to customize Primo to display dynamic info.





Solution

lot secure | search.swu.ac.th/primo-explore/fulldisplay?docid=ALEPH_MONO000203961&context=L&vid=SWUUI&lang=en_US&search_scope=def

BOOK
Argument and evidence : critical analysis for the social sciences
Peter. Phelan Peter J Reynolds 1995
Library Resource
Available at Central Library (SWU) BK-E 5th fl. (300.72 Ph538A) >

TOP
SEND TO
GET IT
DETAILS
LINKS
MORE
VIRTUAL BROWSE
TAGS

Send to

Get It

LOCATION ITEMS
Central Library (SWU)
Available, BK-E 5th fl. (300.72 Ph538A)

On Shelf Book 31011100064583
BK-E 5th fl. 300.72 Ph538A
Shelf information

Details
Title Argument and evidence : critical analysis for the social sciences

- Place the an HTML link onto the Primo's item page (from the search results) using Google Tag Manager
- Implement a bookshelf location API that provides the exact location of the book based on the bookshelf number

Bookshelf organization



Level 1 Slot 1

- 300 ก - 300 ส 532
ด้าน A ส็อก 1 ชั้น 1
- 300 ส 558 - 300.2 ส 181
ด้าน A ส็อก 1 ชั้น 2
- 300.2 ฮ 131 - 300.7 พ 884
ด้าน A ส็อก 1 ชั้น 3
- 300.7 น 246 - 300.71 ร 399
ด้าน A ส็อก 1 ชั้น 4
- 300.71 ว 651 - 300.72 ก 471
ด้าน A ส็อก 1 ชั้น 5
- 300.72 ก 475 - 300.72 ซ 244
ด้าน A ส็อก 1 ชั้น 6
- 300.72 ณ 212 - 300.72 ป 759
ด้าน A ส็อก 1 ชั้น 7



Level 1 Slot 2

Level 2 Slot 2

Level 3 Slot 2



Database and search result

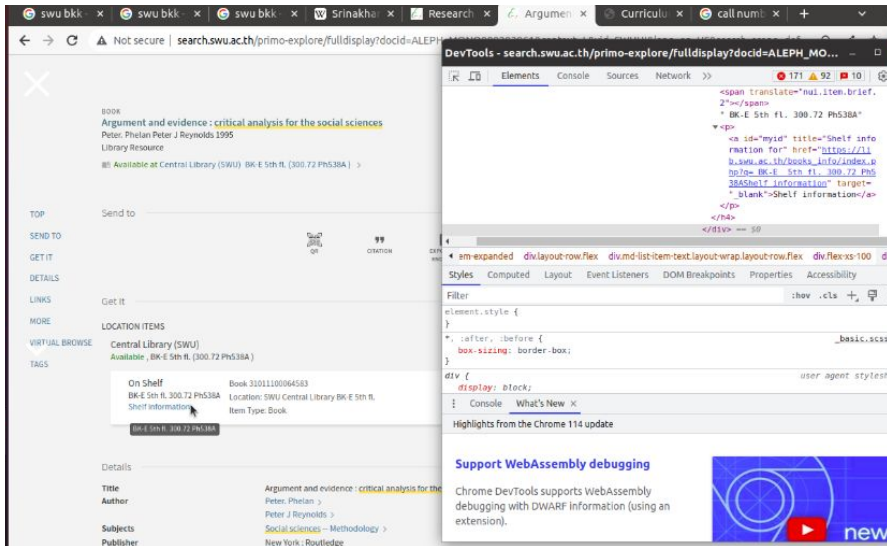
- Store the **start/last** call number of each bookshelf location in a database (or an online spreadsheet)

FL	Shelf	Side	Slot	Level	Language	Collection	Min_CallNumber	Max_CallNumber
5	1	A	1	3	TH	General	300 B173	301.41 S246
5	1	A	2	3	TH	General	302.00 A246	304.50 PH111

Example of the call number search

- Call number **300 C173** will be located at library's **floor 5th, shelf ID 1, Side A, Slot 1, and level 3**
- Call number **302 J200** will be located at library's **floor 5th, shelf ID 1, Side A, Slot 2, and level 3**

Google Tag Manager



The screenshot shows a browser window with the URL `search.swu.ac.th/primo-explore/fulldisplay?docid=ALEPH_MO...`. The page content includes book details for 'Argument and evidence: critical analysis for the social sciences' by Peter Phelan. The DevTools 'Elements' panel shows the following HTML structure:

```

<span translate="mul.Item.brief.2"/>/span
  <div class="BK-E 5th fl. 300.72 Ph538A">
    <div class="myid" title="Shelf information form" href="/lib.swu.ac.th/book_shelf/index.php?w=BK-E 5th fl. 300.72 Ph5385Shelf information" target="_blank">Shelf information/</div>
  </div>

```

The 'Styles' panel shows the default style for the selected `div` element:

```

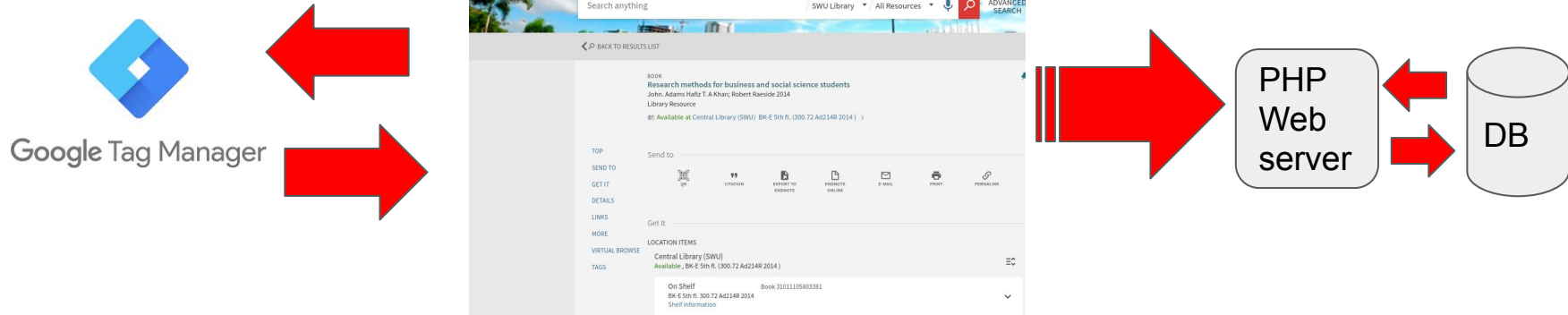
element.style {
}
:after, :before {
  box-sizing: border-box;
}
div {
  display: block;
}

```

- By utilizing Primo template, we can add Google Tag manager tag onto the Primo page
- Create a customized script to insert an HTML element after the DOM id “location-item”
- Example of the HTML element tag https://lib.swu.ac.th/book_shelf/index.php?q=300.72%20Ph538A



Data flow





Example of the result

not secure | search.swu.ac.th/primo-explore/fulldisplay?docid=ALEPH_MONO000203961&context=L&wid=SWUII&lang=en_US&search_scope=def.

BOOK
Argument and evidence : critical analysis for the social sciences
Peter. Phelan Peter J Reynolds 1995
Library Resource
Available at Central Library (SWU) BK-E 5th fl. (300.72 Ph538A) >

TOP
SEND TO
GET IT
DETAILS
LINKS
MORE
VIRTUAL BROWSE
TAGS

Send to

GET IT
CITATION
EXPORT TO ENDONOTE
ENDNOTE ONLINE
E-MAIL
PRINT
PERMALINK

Get It

LOCATION ITEMS
Central Library (SWU)
Available, BK-E 5th fl. (300.72 Ph538A)

On Shelf Book 31011100064583
BK-E 5th fl. 300.72 Ph538A
Shelf information

Details
Title Argument and evidence : critical analysis for the social sciences

- User clicks the Shelf information link on Primo
- The book's location obtained from the database search will be displayed

Primo by Ex Libris - critica x Argument and evidence : x Books Info x +

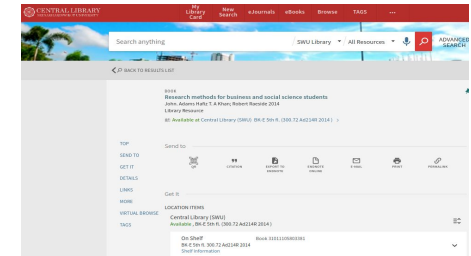
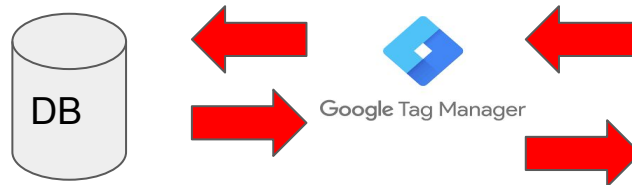
lib.swu.ac.th/bo...%20BK-E%20%205th%20fl.%20300.72%20Ph538AShelF%20inforation

lib.swu.ac.th says
เลขหมู่ 300.72 Ph538A อยู่ที่ชั้น 5 ตู้ที่ 1 ด้าน ล็อกที่ 1 ชั้นที่ 5

OK

Summary

- This pilot project aims to improve the user experience on locating books on the bookshelves from the Primo search result
 - Implement the Google Tag manager to insert a DOM tag on Primo
 - Create a database to store the first/last of the call number for each shelf's slot
 - Implement an API to return the book location via the database search result.
- The bookshelf location can potentially be inserted directly at the Primo's item page or at the search result by having Google Tag Manager script called a database or a google sheet (future work)





Thank you



By Werayuth Charoenruengkit, Ph.D.
Department of Computer Science
Srinakharinwirot University, Thailand
werayuth_at_g.swu.ac.th