



University
of Exeter

Ranking Configuration and Harvested Collections in Primo VE

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Library
Search

Search anything

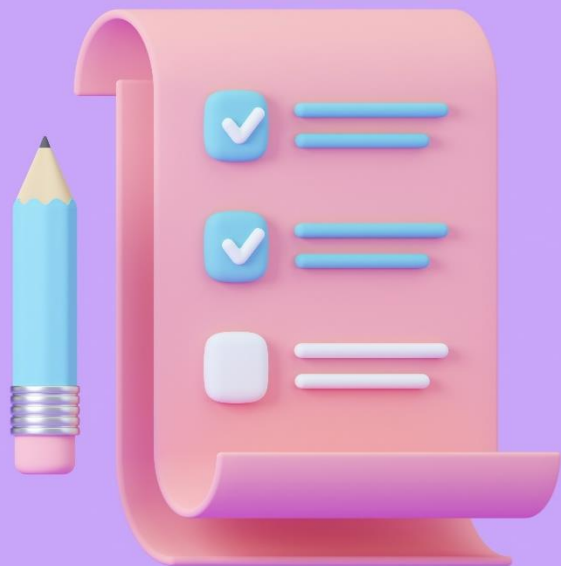
Library Search

Welcome to the new Library

Sign-in to your account to:

- Request and renew items
- Pin results to My Favourites
- Set up saved search alerts
- Export citations

Agenda



- Context
 - University of Exeter
 - University of Exeter Library
- Ranking Configuration
 - Checking the Knowledge Centre
 - Gathering evidence
 - Testing in the Sandbox
 - API article
 - Some lessons learned
 - Harvested Collections
 - Working with an API
 - Results so far
- Q&A



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Institutional Context

- 30,000 students from over 150 countries
- 7,400 staff from over 100 countries
- Russell Group member
- 155th in QS World University Rankings 2025
- Partnership with Falmouth University



Cornwall
Penryn
Penryn Campus
Truro
Knowledge Spa

Devon
Exeter
Streatham Campus
St Luke's Campus
RILD Building (Royal Devon
and Exeter Hospital)
CSRC (Royal Devon and
Exeter Hospital)



2023/24

The Library

We migrated from Millennium and Encore to Alma and Primo VE (and Rapido) in July 2023

- Deep Search with Cornwall campuses
- Integrated collections – Devon and Exeter Institute, Bill Douglas Cinema Museum, Archives and Special Collections
- Presented at IGELU 2023 on this change

Ranking Configuration work

- Error log – staff identified issues with owned books not surfacing
- Presented at IGELU 2024 on this work



Checking the Knowledge Center

- [Ranking configuration](#) is a delicate balancing act requiring **a lot of careful testing in the Sandbox!**
- Configuring aspects of the ranking algorithm
 - Fields Boosting
 - Date Boosting – maximum of 5 date/date range rows
 - Resource Type Boosting
- Non-Fields boosts have more impact and can significantly change results
- Positive boost
 - Value from 1.0 to 1000000
- Negative boost
 - Value from 0.0 to 1.0
- CDI results not effected by ranking configuration

Ranking Configuration

Fields Boosting

1 - 7 of 7

Field	Name	Boosting Factor
1. title	Title	3.5
2. creator	Creator	3.0
3. sub	Subject	2.5
4. toc	TOC	1.5
5. isbn	ISBN	1.0
6. lang	Language	1.0
7. addtitle	Additional title	0.01

Date Boosting

Resource Type Boosting

Gathering evidence

- Spreadsheet of examples from staff
 - Search terms used, date and format of target
 - Primo Analytics for popular searches
- It's not always the ranking!
 - Metadata – alternative titles
 - Staff training – ‘multiple versions’
- Simple search – title and author surname
 - Target surfaces from title but is buried when surname is added
 - Source – Alma/SFX Local Collection vs. Library Catalog

Search terms	Surfaces?	Source
marketing: an introducti	No	Library Catalog
social psychology baror	No	Library Catalog
research methods and s	No	Library Catalog
International human res	No	Library Catalog
How to write better essa	Yes	Alma/SFX Local Collection
Developing skills for bus	Yes	Alma/SFX Local Collection
International Financial	Yes	Alma/SFX Local Collection
legal skills finch	Yes	Alma/SFX Local Collection
Developing skills for bus	Yes	Alma/SFX Local Collection

Results are from not signed
in, testing done on Firefox

Green means sandbox results are

Search terms	Date (of target)	Print/E- (target)
--------------	---------------------	----------------------

Developing skills for business leadership	2023	E-
Developing skills for business leadership watson	2023	E-
How to write better essays	2023	E-
How to write better essays Greetham	2023	E-
of probability	1950	Print
Foundations of the theory of probability Kolmogorov	1950	Print
DSM 5/DSM 5/DSM5	2013	Print
China's Belt and Road Initiative	2020	E-
Central Asia, Southeast Asia and Central Eastern		

Testing in Sandbox

- Testing in the Sandbox
 - Trying out different boost factors to see the impact on results
 - E.g. Resource type – Books. Boosting by 10 had the unwanted results of burying relevant articles
- A more organised approach
 - Checking every example after every change
 - Making notes on how the results responded to each change
- Incremental date boosting over past 5 years
- Remember the Sandbox is not based on current Alma data
 - Time spent trying to surface a result which didn't exist in the Sandbox yet – woops!

	Sandbox 28/2/24	Notes
	2nd	use 776 field to relate editions
	2nd	as above
	1st	
	1st	The 2018 book chapters are Keen to be surfaced
	1st	
	Buried	I had the print showing 1st on the sandbox but lost it now
		Resource recommender comes up now with direct link to text
	5th	5th for good reason, there are other more recent e-books with this phrase in the title

API article

- Configure Primo VE Search Result Ranking with Clarity: A Workable Method Using API
 - Can Li, Internet Reference Services Quarterly, 28(4), 2024
- “the first page of a search result is prime real estate that libraries do not want to waste on resources unlikely to be the top choices for users”
- “achieving a satisfactory ranking can be elusive”
- Using a Primo Search API makes testing clearer
 - Saves time scrolling to check changes in results
 - Gives a ‘score’ for results in the data – monitoring changes to this score shows the impact configuration changes are having

```
[{"language": [ "eng" ],  
"title": [ "Renewable Energ  
"creationdate": [ "2021" ],  
"creator": [ "Secretariat o  
"publisher": [ "Secretariat  
"mms": [ "99101684521360744  
"version": [ "1" ]  
},  
"control": {  
  "sourcerecordid": [ "991016  
  "recordid": [ "alma99101684  
  "sourceid": "alma",  
  "originalsourceid": [ "9926  
  "sourcesystem": [ "NON_SFX"  
  "sourceformat": [ "MARC21"  
  "score": [ "2.454527" ],  
  "isDedup": false  
},  
"addata": {  
  "aulast": [ "Secretariat of
```


Lessons learned

- It is very easy to get lost in this process
- Document EVERYTHING
 - When testing a change, document specifically what change you are testing (seems obvious doesn't it?)
- It isn't always the ranking
- Check the default settings every now and again
 - (in the Sandbox!)
- Let go of the idea that you will ever get it 'right'



Harvested Collections

- Three Harvested Collections: Bill Douglas Cinema Museum (Bespoke Catalogue), Special Collections (CALM) and Institutional Repository (DSpace/Figshare)
- Imported using discovery import profiles
- We match resource types where possible to make the items discoverable when filtering.
- Found some weird results for some searches such as “Climate Change” so investigated further.



API Setup

- We setup an API key for both our Sandbox and our Live site for testing.
- We used the Developer Network API console to build the searches.
- We then ran the searches in browser using the URL provided by the console.

```

},
"highlights" : {
  "snippet" : [ "climate change", "climate", "climatic", "Climate change", "Climate Change",
  "subject" : [ "Climate change", "climate", "climate change", "Climate Change", "Climatic ch
  "title" : [ "climate", "climatic change", "climate change", "Climatic", "Climate change", "
  "termsUnion" : [ "climate change", "climate", "climatic", "Climate change", "Climate Change
change", "Climatic Changes" ],
  "general" : [ "Climate", "Change" ],
  "issn" : [ "Climate", "Change" ],
  "description" : [ "climate", "change", "Climate", "Change", "changes" ]
},
"docs" : [ {
  "context" : "L",
  "adaptor" : "Local Search Engine",
  "@id" : "https://eu04-psb.alma.exlibrisgroup.com/primaws/rest/pub/pnxs/L/991016901264507446
  "pnx" : {
    "display" : {
      "source" : [ "ORE" ],
      "type" : [ "article" ],
      "language" : [ "eng" ],
      "title" : [ "Decolonizing climate change-heritage research" ],
      "identifier" : [ "$Ccdidentifier$VPublished online 14 February 2022;$Ccdidentifier$
      "creationdate" : [ "2022-02-15T15:45:02Z" ],
      "creator" : [ "Simpson, NP", "Clarke, J", "Orr, SA", "Cundill, G", "Orlove, B", "Fatori
      "publisher" : [ "Nature Research" ],
      "description" : [ "Climate change poses a threat to heritage globally. Decolonial appro
      "mms" : [ "991016901264507446" ],
      "relation" : [ "$Ccother relationship$VNature Climate Change" ],
      "rights" : [ "2022-08-14", "Under embargo until 14 August 2022 in compliance with publi
      "version" : [ "1" ]
    },
    "control" : {
      "sourcerecordid" : [ "991016901264507446" ],
      "recordid" : [ "alma991016901264507446" ],
      "sourceid" : "alma",
      "originalsourceid" : [ "oai:ore.exeter.ac.uk:10871/128816" ],
      "sourcesystem" : [ "Dspace" ],
      "sourceformat" : [ "DC" ],
      "score" : [ "0.19823791" ],
      "isDedup" : false
    },
    "addata" : {
      "au" : [ "Simpson, NP", "Clarke, J", "Orr, SA", "Cundill, G", "Orlove, B", "Fatorić, S"
      "date" : [ "2022-02-15T15:45:02Z" ],
      "abstract" : [ "Climate change poses a threat to heritage globally. Decolonial approach
      "pub" : [ "Nature Research" ],
      "format" : [ "journal" ],
      "genre" : [ "article" ],
      "ristype" : [ "JOUR" ],
      "atitle" : [ "Decolonizing climate change-heritage research" ]
    },
    "sort" : {
      "title" : [ "Decolonizing climate change-heritage research" ],
      "author" : [ "Simpson, NP" ],
      "creationdate" : [ "2022-02-15T15:45:02Z" ]
    },
    "facets" : {
      "frbrtype" : [ "6" ],
      "frbrgroupid" : [ "9026889983484069038" ]
    }
  }
},
}

```

API Fun

- Looking at the score for the results to see how they were affected by ranking configuration
- Testing a sample of searches to compare boosting scores
- Changing the boosting in increments and checking the impact of those changes
- Tested using Resource Type Boosting Date Boosting and Fields Boosting

Ranking Configuration

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Date Boosting

1 - 4 of 4

Field	Boosting Factor
1.. 2026-2028	2
2.. 2024-2025	1.9
3.. 2021-2023	1.8
4.. 2015-2020	1.7

Open Refine

- Imported the data from the API searches
- Created Project
- Looked at Score

```
mirror_mod = modifier_obj
error object to mirror
mirror_mod.mirror_object =
ration == "MIRROR_X":
mirror_mod.use_x = True
mirror_mod.use_y = False
mirror_mod.use_z = False
peration == "MIRROR_Y":
mirror_mod.use_x = False
mirror_mod.use_y = True
mirror_mod.use_z = False
peration == "MIRROR_Z":
mirror_mod.use_x = False
mirror_mod.use_y = False
mirror_mod.use_z = True

lection at the end -add
ob.select= 1
r_ob.select=1
text.scene.objects.active
Selected" + str(modifier
error_ob.select = 0
copy.context.selected_obj
ta.objects[one.name].se
nt("please select exactly
- OPERATOR CLASSES -----
ypes.Operator):
X mirror to the selected
ject.mirror_mirror_x"
ror X"
context):
ext.active_object is not
```

Conclusions

- Learning Opportunity to use OpenRefine and the Primo VE API
- Provide a better results for patrons



Next steps

- Andrew leaves for the Natural History Museum
- Elle takes charge!





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Thank you for listening.

Any questions?

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