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# Eliminating Data Redundancy: Our Solution for Database Discovery using Alma/Primo

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# Eliminating Data Redundancy: Our Solution for Database Discovery using Alma/Primo

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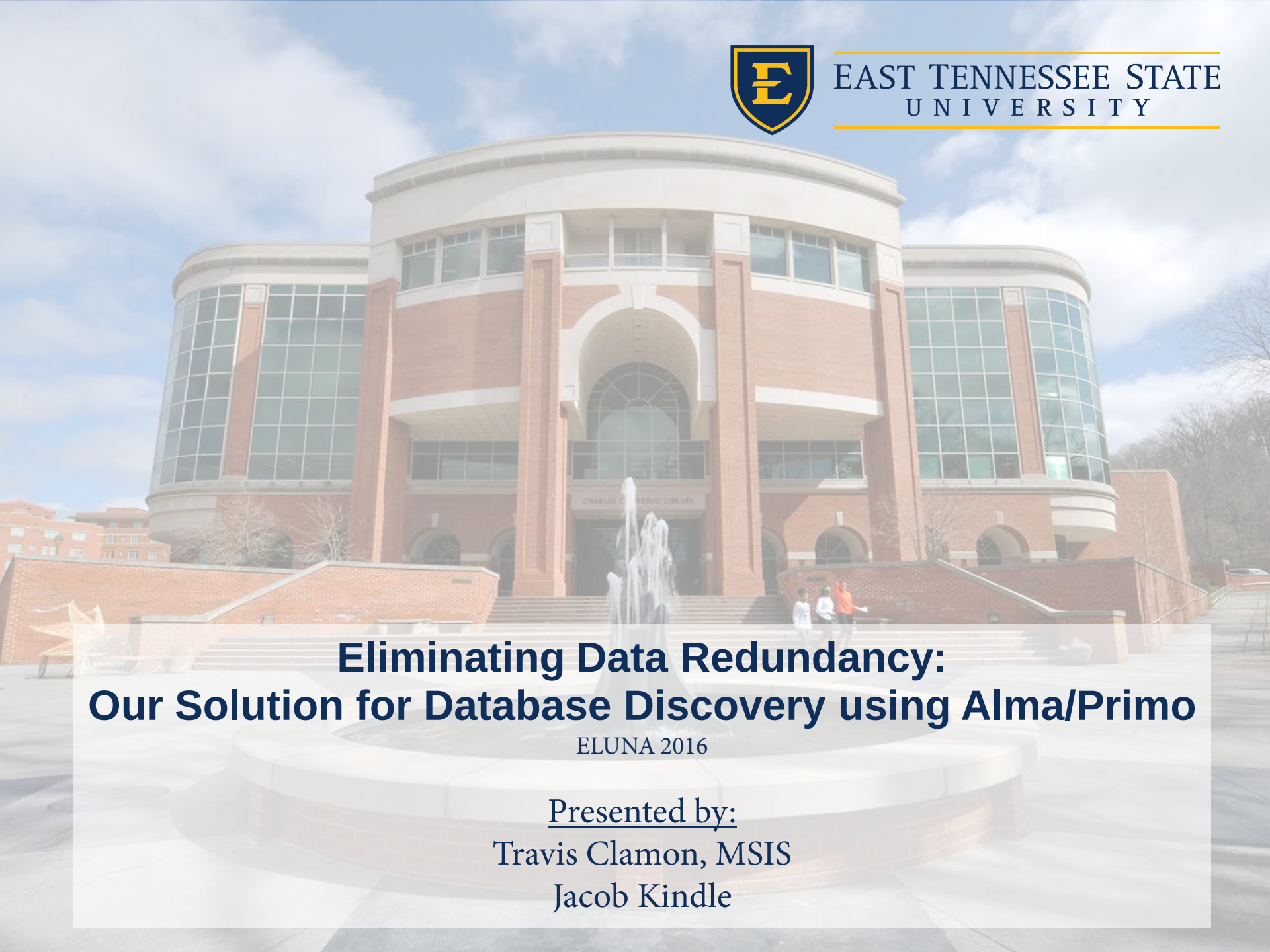


EAST TENNESSEE STATE UNIVERSITY

# Eliminating Data Redundancy: Our Solution for Database Discovery using Alma/Primo

ELUNA 2016


Presented by:

Travis Clamon, MSIS

Jacob Kindle

# Background

- Travis Clamon, MSIS
  Electronic Resource Specialist

- Jacob Kindle
  Web Manager

- ETSU = ~15,000 Students / 2,000 employees

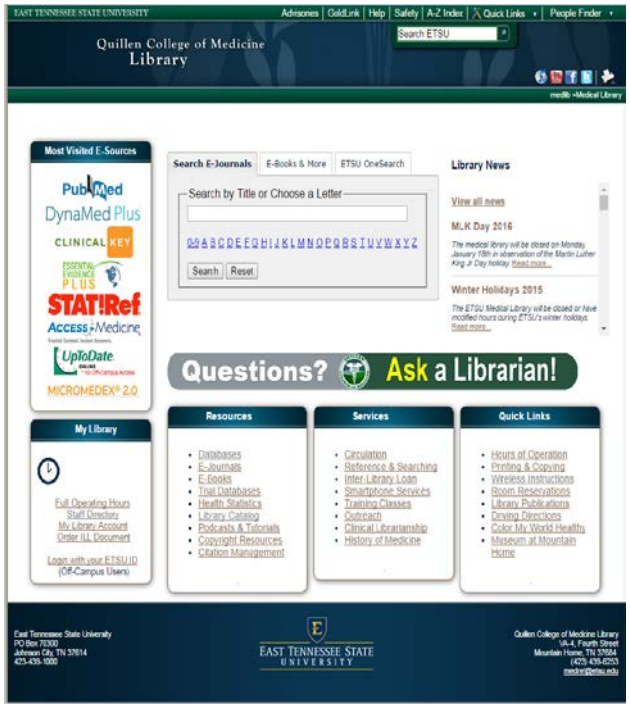
- Migrated to Alma & Primo in June 2015

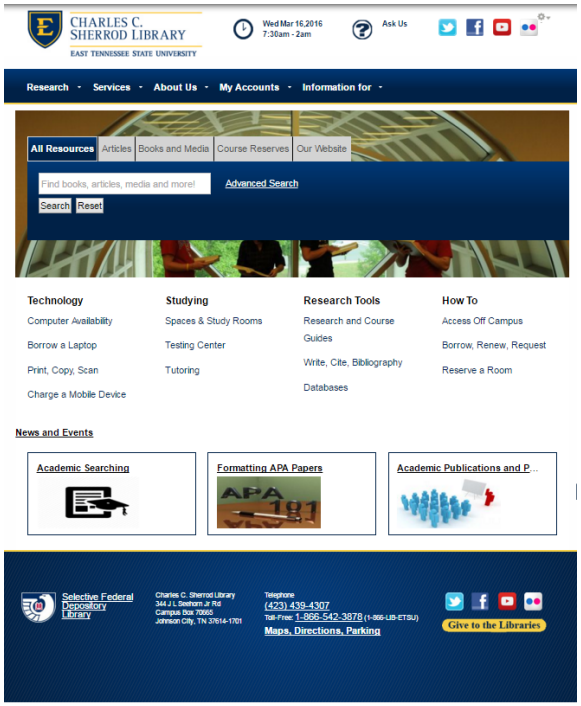
# Our E-Resource Workflow Goal

- Eliminate Redundant Data
- Simplify Workflow
- Improve Discovery
- User Experience
- Support

# Electronic Resource Endpoints

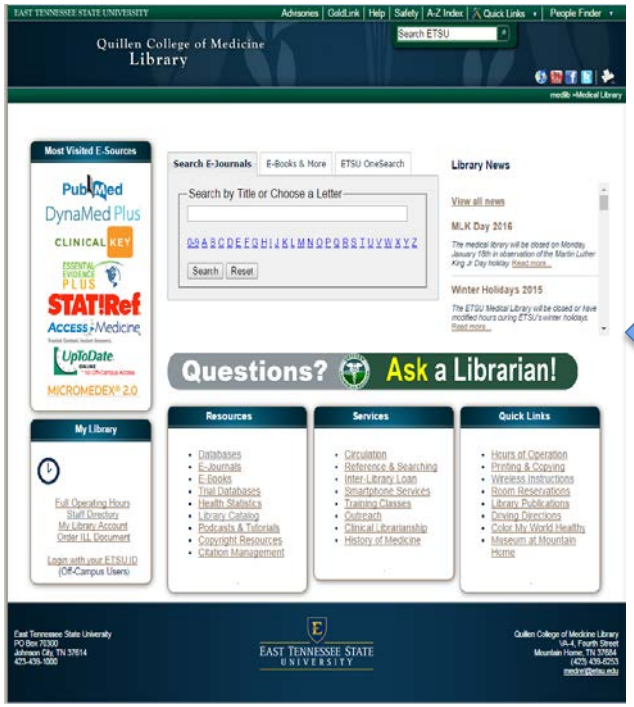
LibGuides






ExLibris Primo

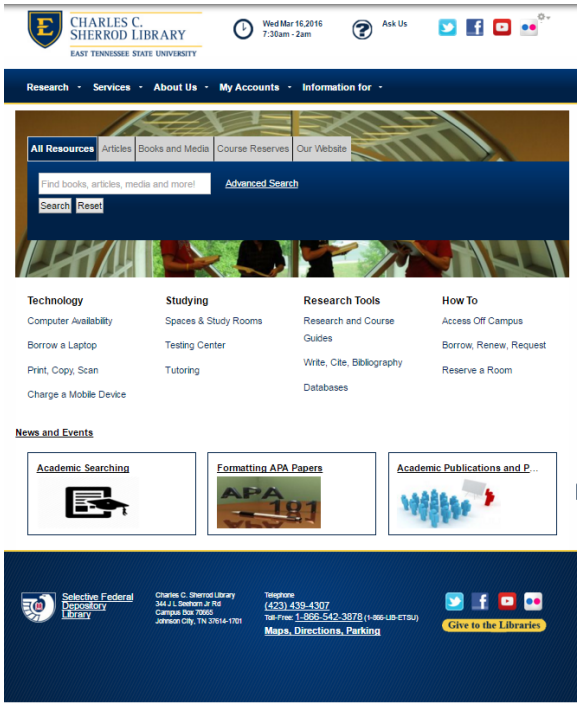
# Electronic Resource Endpoints




LibGuides

Alma

Primo



# How did we accomplish our goal?

6 Steps:

- Assessment
- Metadata
- Alma Setup
- Primo Setup
- Primo X-Service API
- A-Z Development

Step 1:

## Assessment

- Identify Resources
- Compare with existing collections in Alma
- Develop Final list for metadata

- Review & Compare
- Full text collections should already exist in Alma
- Create Electronic Collections of “Database” type if no portfolios exist (Abstract / Website / etc.)
- The final list will serve as a checklist for metadata

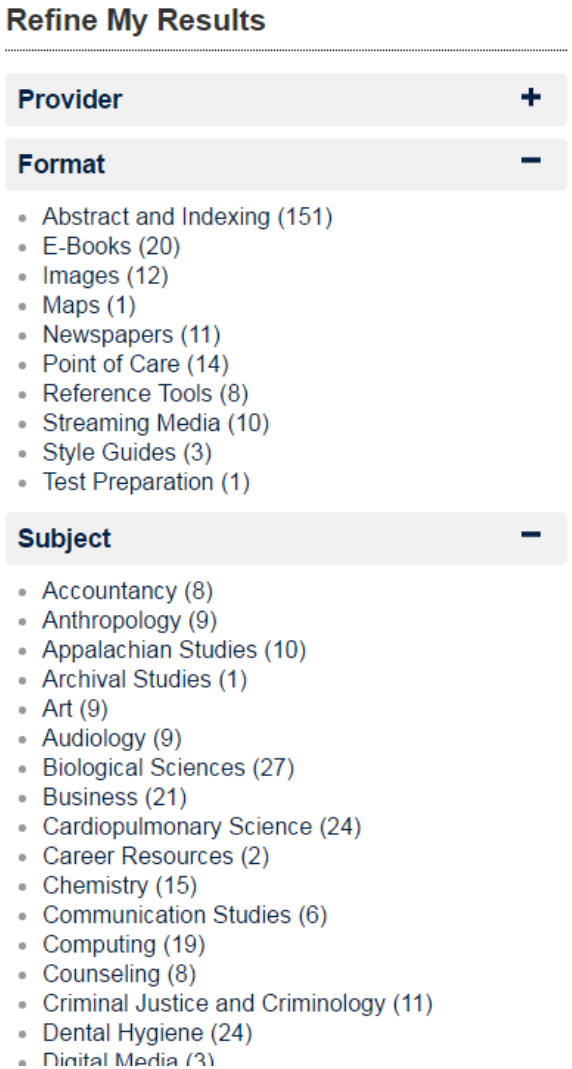
# Step 2:
# **Metadata**

- Create MARC Records for each database/resource
- MARCedit
- Permalinks recommended for URL's
- Create Authority Lists for Subjects, Providers, and Formats

- 245a = title
- 500a = database coverage
- 520a = short description
- 520b = long description
- 653a = keywords
- 914a = Licensed / OA
- 917 = URL / Provider/Access Note
- 960a = ETSU subject
- 963a = Format

=LDR \\\\\nmi\a22\\\\\\u\4500
=008 \\\\\\u\\\\\\\\\\\\\\\s\\\\\000\0\eng\d
=245 00$aCriminal Justice
=500 \\$aDatabase coverage: 1981-current.
=520 \\$aFull-text coverage of crime and its social and legal implications.$bSupports research on crime, its causes and impacts, legal and social implications, litigation, and crime trends. Includes correctional and law enforcement trade publications, crime reports, and other material relevant to careers in criminal justice and law enforcement.
=653 \\$aAddiction
=653 \\$aCriminology
=653 \\$aCorrections administration
=653 \\$aCriminal law
=653 \\$aFamily law
=653 \\$aIndustrial security
=653 \\$aRehabilitation
=914 \\$aLicensed
=917 40$3ProQuest$uhttp://libs.etsu.edu/links/cjft.html$zETSU
=960 \\$aCriminal Justice and Criminology
=960 \\$aPsychology
=960 \\$aSocial Work
=963 \\$aAbstract and Indexing

**Sample MARC Record – Criminal Justice (ProQuest)**




**Create a controlled vocabulary for all facet fields (Subject, Format, Provider, etc)**

- Consult with staff and librarians
- This will eliminate variations of terms causing duplicate facet terms ("Computing" vs. "Computer Science")
- Primo Static Facets will also help (discussed shortly)

**Before you begin creating records……**

Step 3:

**Alma Setup**

- Import records using import profile
- Complete required fields for all electronic collections
- Search Index – Easy find
- Associate to Alma set or top level collection

Profile Type Repository  Profile name Database LOAD

Profile Details | Normalization & Validation | Match Profile | Set Management Tags | Inventory Information

**Profile Details**

Profile name Database LOAD
Profile description Import Database MARC Records
Originating system Other
File name patterns -
Import Protocol Upload File/s
Cross walk No
Physical source format Binary
Encoding format ISO8859_1
Source format MARC21 Bibliographic
Target format MARC21 Bibliographic
Status Active

Profile Details | Normalization & Validation | Match Profile | Set Management Tags | Inventory Information

**Match Profile**

Serial match method 001 To MMS_ID Match Method
Non Serial match method 001 To MMS_ID Match Method

**Match Actions**

Handling method Automatic
Upon match Overlay

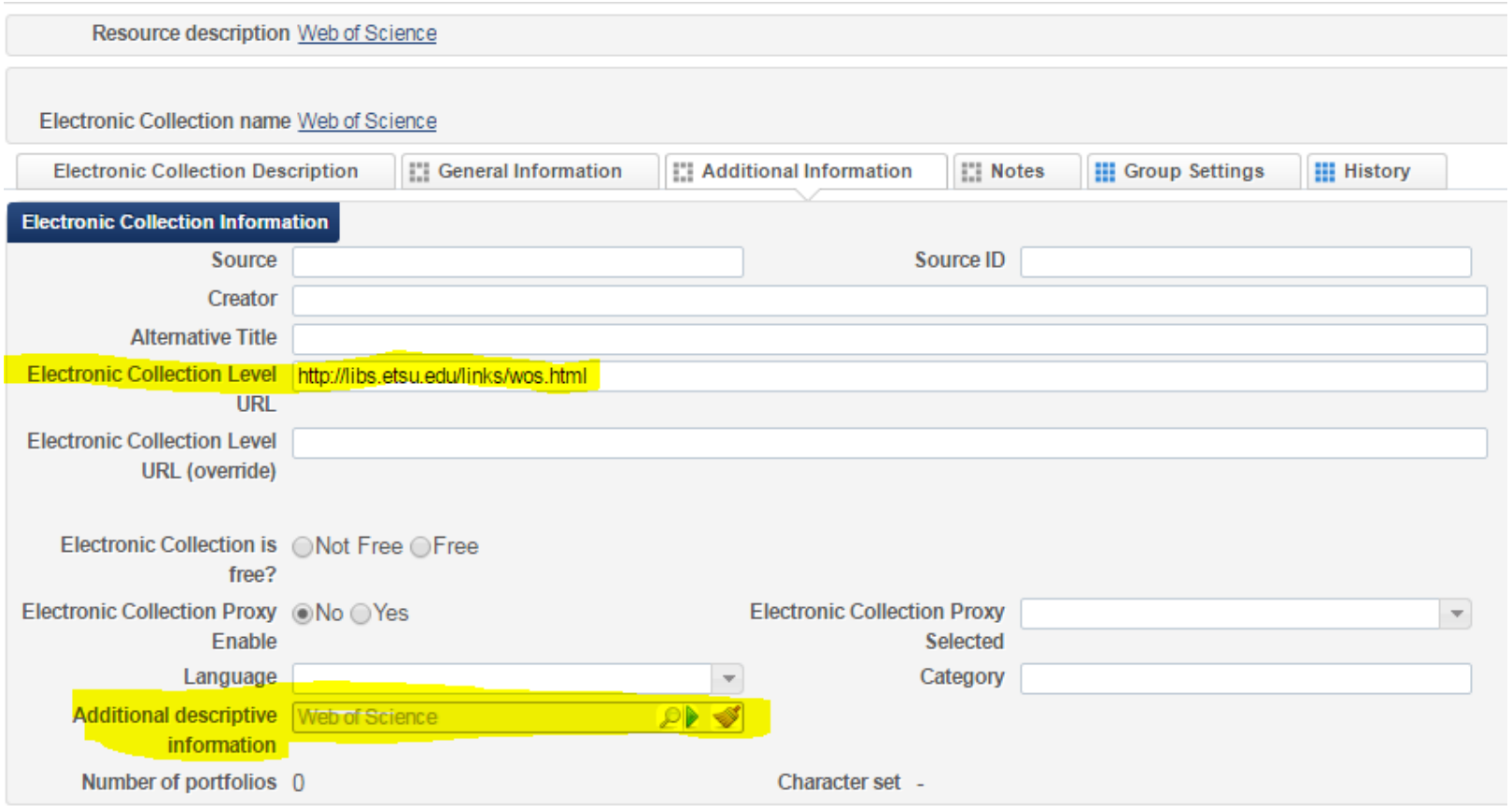
Merge/Overlay
Merge method Database Overlay
Allow bibliographic record deletion No
Do not override/merge a non-brief record with a brief version No
Unlink bibliographic records from community zone No
Do not override/ merge record with an older version Disabled

DatabaseOverlay.dslr

```
rule "Database MARC Merge"
  when
        merge
  then
       replace MARC.XXX excluding "001"
end
```

Allows overlay of local fields

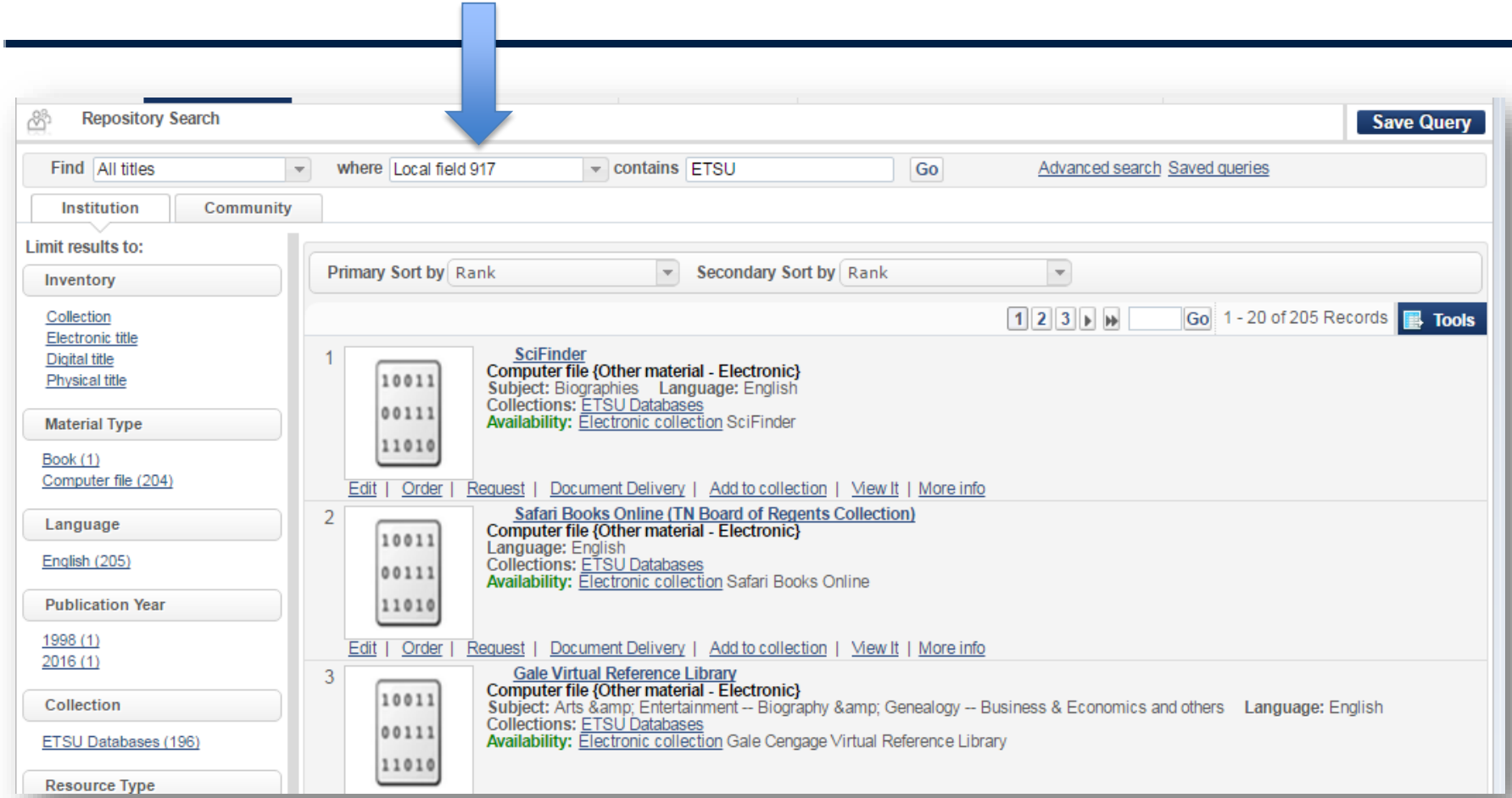
# Create Import Profile & Merge Rule




## Complete required fields for all electronic collections

Electronic Collection Level URL (ETSU uses short permalinks)

Additional descriptive information




## Create Search Index to find DB's - Save as an Alma Set

ETSU Databases

General Details

Name ETSU Databases
Description -
External System -
External ID -
Title ETSU Databases
Library ETSU Sherrod Library

Sub-collections (1) | Title List (198)

Title List

Find : in : Title Go

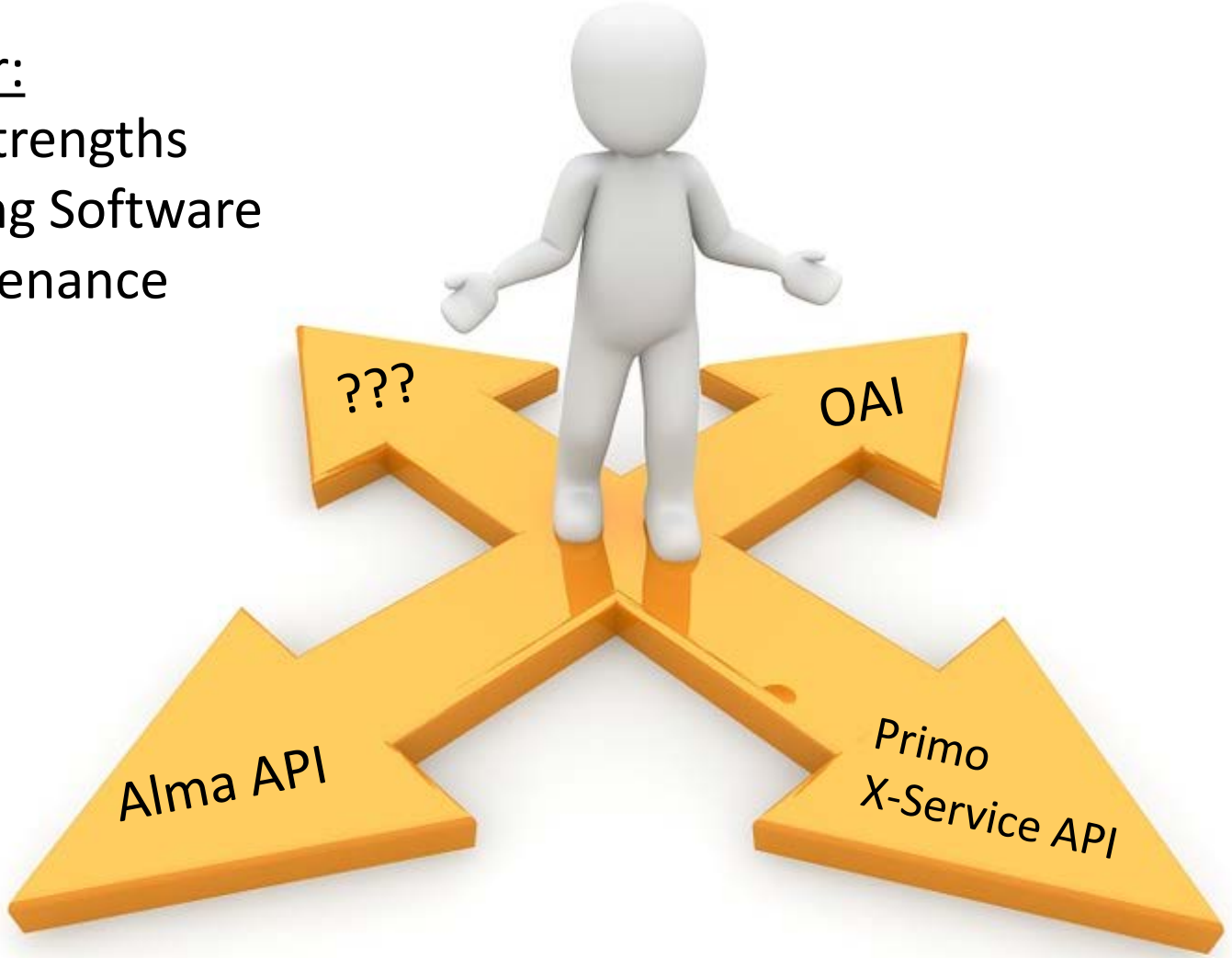
1 2 3 Go 1 - 20 of 198 Records Columns Tools

| | MMS ID | Title | Material Type | |
|---|---|---|---|---|
| 1 | 9951466402331 | ARTstor | Computer file | View |
| 2 | 9969187302331 | ClinicalKey | Computer file | View |
| 3 | 99164888202331 | ACM Digital Library | Computer file | View |
| 4 | 99164987402331 | MathSciNet | Computer file | View |
| 5 | 99167786602331 | CABI Global Health | Computer file | View |
| 6 | 99173587902331 | Canadian Newsstand Complete | Computer file | View |
| 7 | 99174486302331 | Snapshots | Computer file | View |
| 8 | 99174486402331 | FIAF Index to Film Periodicals Plus | Computer file | View |
| 9 | 99174486502331 | Public Health | Computer file | View |
| 10 | 99174486602331 | Telecommunications | Computer file | View |
| 11 | 99174486702331 | Science Journals | Computer file | View |
| 12 | 99174486802331 | Research Library | Computer file | View |
| 13 | 99174486902331 | Religion | Computer file | View |
| 14 | 99174487002331 | Psychology Journals | Computer file | View |

# Create Top Level Collection / Import records from Alma Set

Consider:

- Skill Strengths
- Existing Software
- Maintenance




**A-Z Database Strategy**

# Why we chose Primo X-Services API?

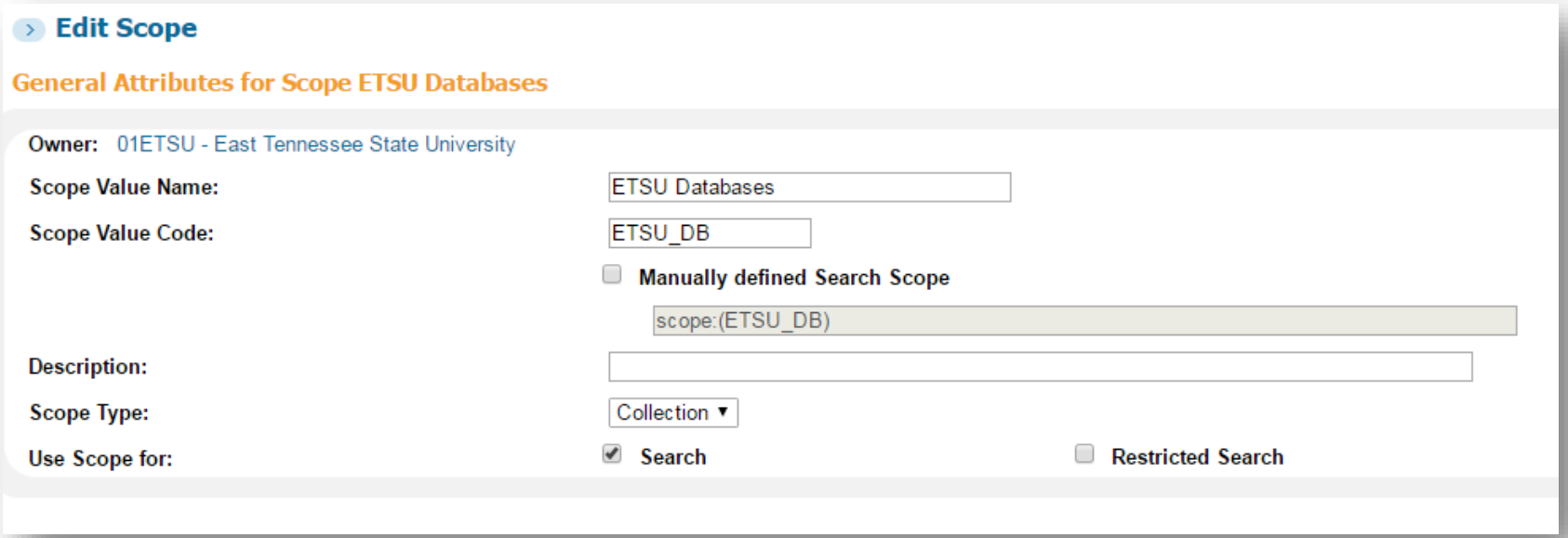
1. Records already harvested in Primo
2. Primo normalization needed work to take advantage of metadata in step 2
3. Facets/Search functionality passed on via API
   - Primo -> Excellent indexing -> Why reinvent the wheel?
4. Less coding / No separate DB needed

# Step 4:

# **Primo Setup**

- Allows for better visibility of database results in Primo
- Sets up the framework for a custom A-Z list using X-Services API.

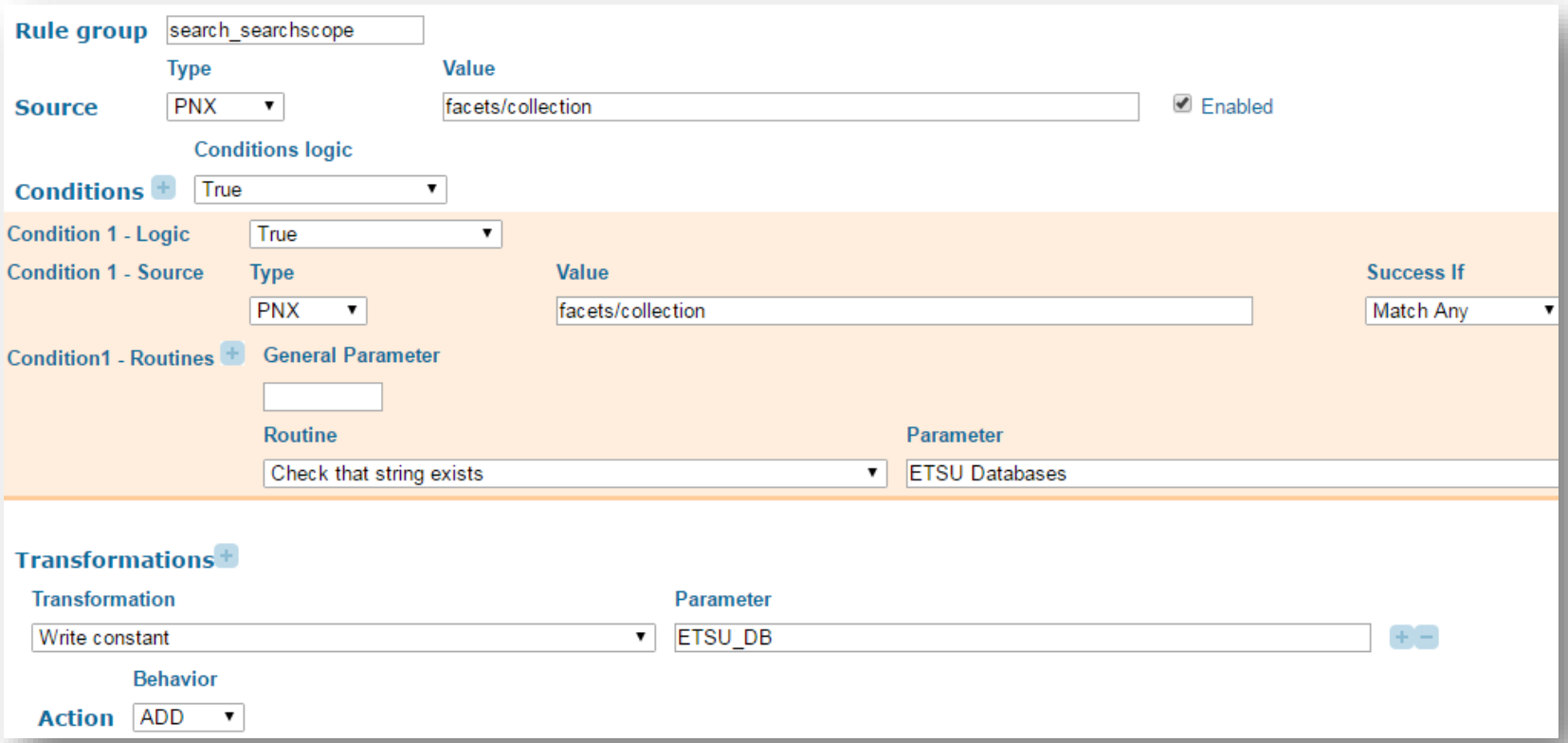
- Scoping
- Display / Linking Fields
- Facets
- Search Fields
- Normalization Rules
- Code Tables
- Mapping Tables
- View Settings




# Create Scope

Used for X-Services API (A-Z List). Only scope DB records.

```
<facets>
    <collection>ETSU Databases</collection>
</facets>
```

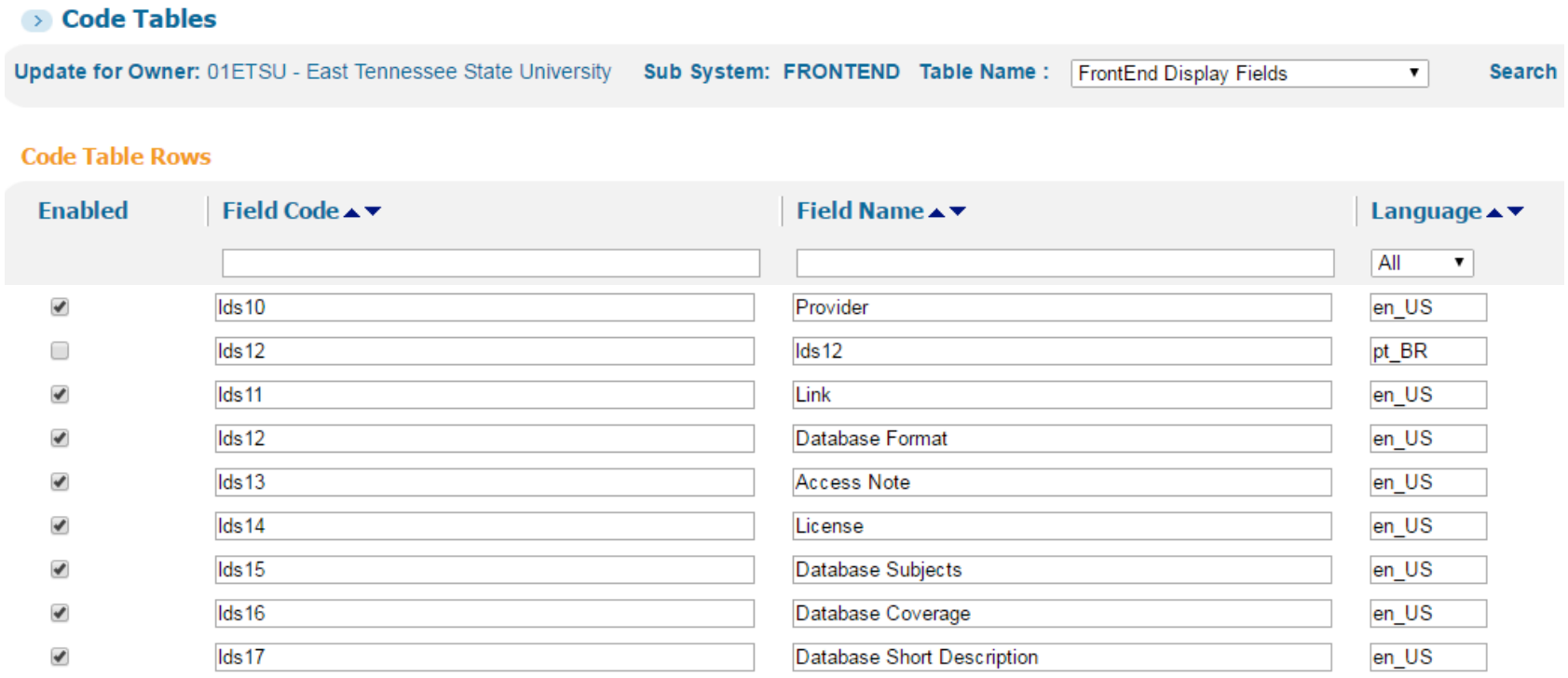



# Create Normalization Rule for Scope

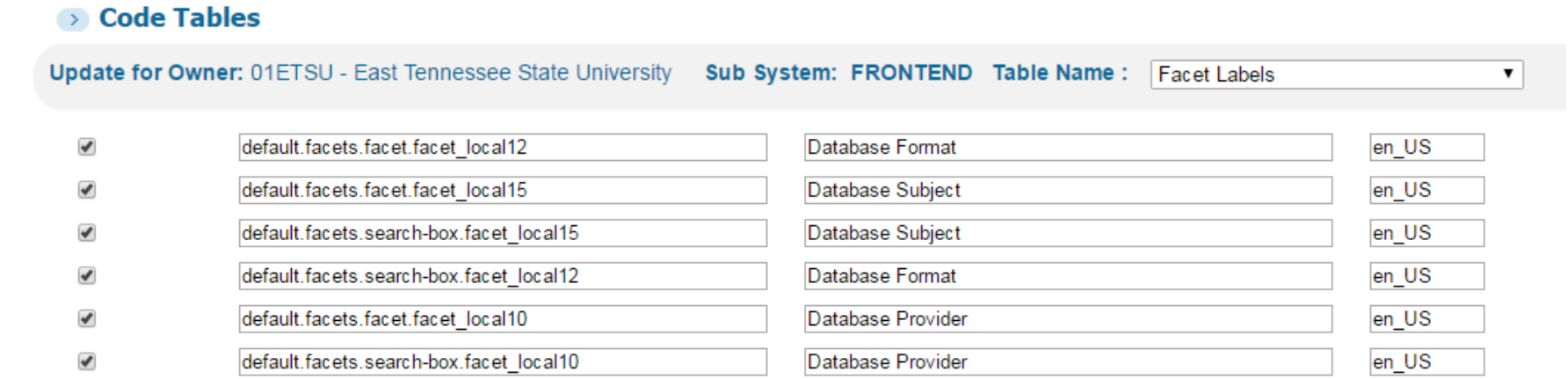
(based on Alma Top Level Collection)

| MARC | Field | PNX |
|---|---|---|
| 245a | Title | /display/title |
| 500a | Coverage | /display/lds16 |
| 520a | Short description | /display/lds17 |
| 520b | Long description | /display/description |
| 653a | Keywords | /display/subject |
| 914a | Licensed / OA | /display/lds14 |
| 917 | URL | /links/lln01 |
| 960a | ETSU Subject | /display/lds15<br>/facets/lfc15 |
| 963a | Format | /facets/lfc12 |
| 917 40 $3 | Provider | /display/lds10<br>/facets/lfc10 |

**Create remaining normalization rules / MARC to PNX**




# Front End Display Fields



## Code Tables

**Update for Owner:** 01ETSU - East Tennessee State University **Sub System: FRONTEND** **Table Name :** Facet Labels

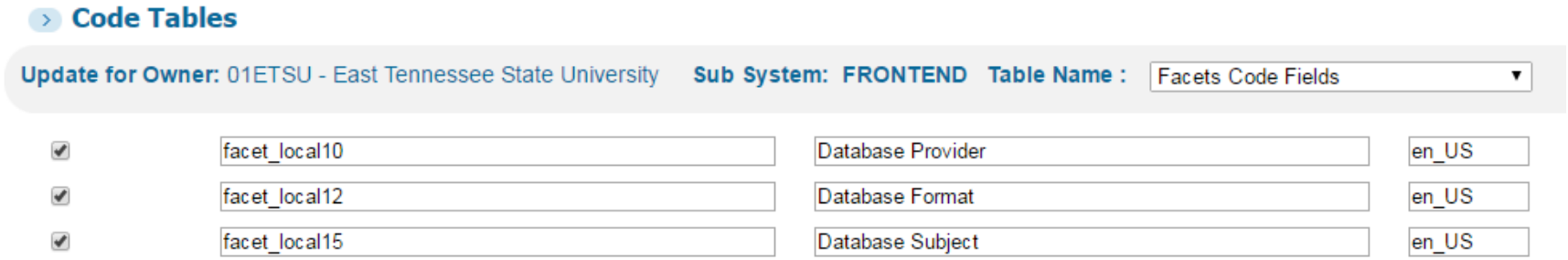
| | | | |
|---|---|---|---|
| ☑ | default.facets.facet.facet_local12 | Database Format | en_US |
| ☑ | default.facets.facet.facet_local15 | Database Subject | en_US |
| ☑ | default.facets.search-box.facet_local15 | Database Subject | en_US |
| ☑ | default.facets.search-box.facet_local12 | Database Format | en_US |
| ☑ | default.facets.facet.facet_local10 | Database Provider | en_US |
| ☑ | default.facets.search-box.facet_local10 | Database Provider | en_US |

# Facet Labels

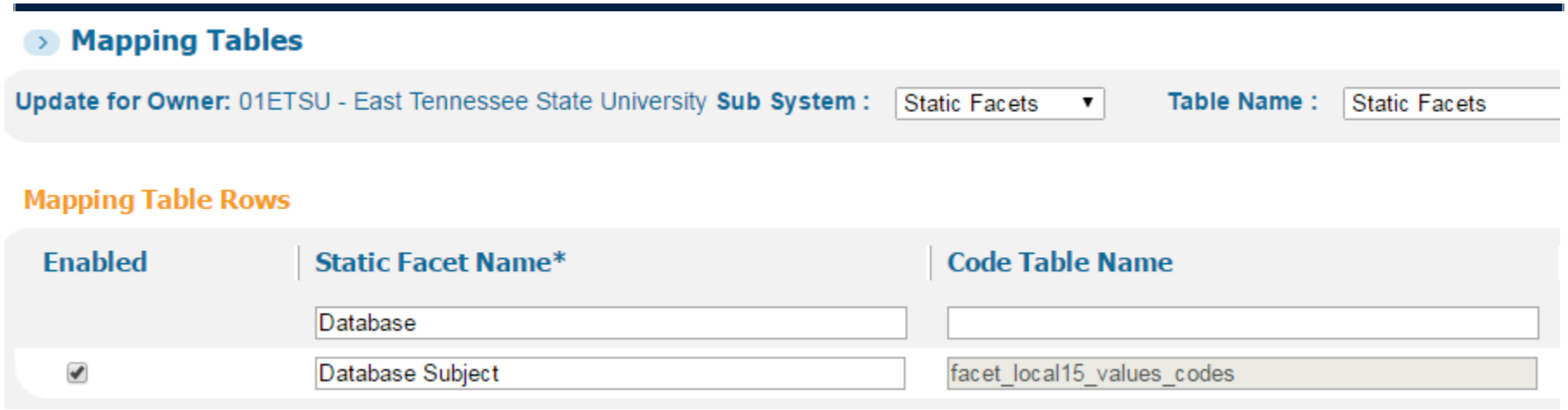
## Code Tables

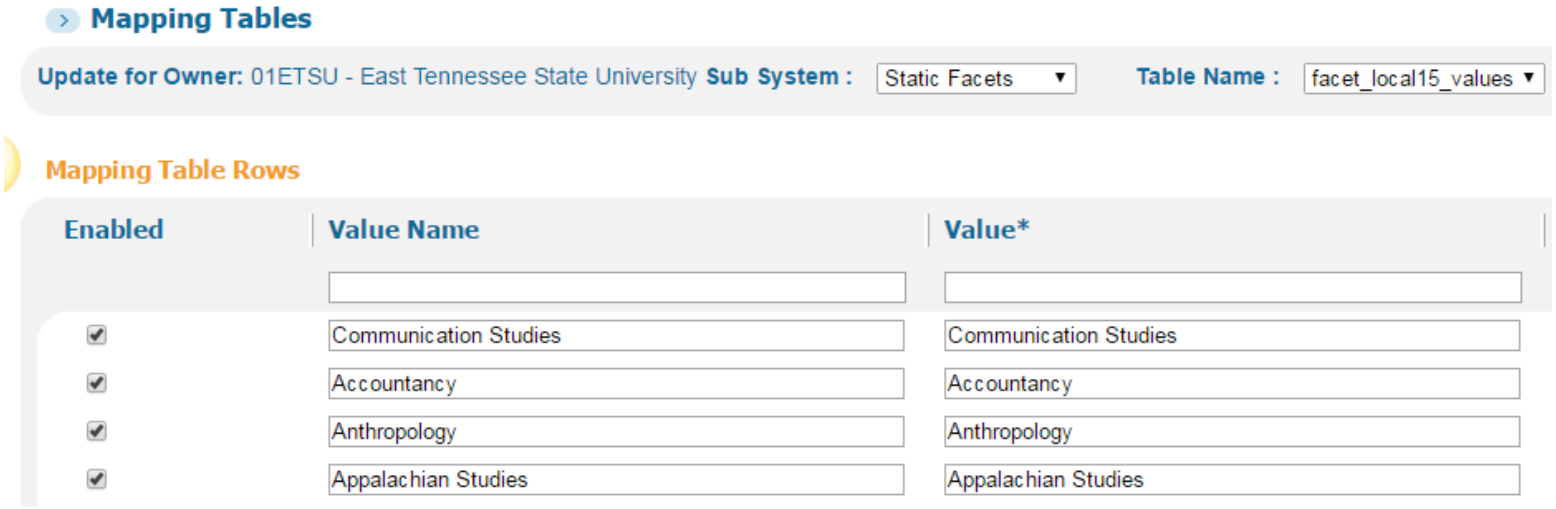
**Update for Owner:** 01ETSU - East Tennessee State University **Sub System: FRONTEND** **Table Name :** Facets Code Fields

| | | | |
|---|---|---|---|
| ☑ | facet_local10 | Database Provider | en_US |
| ☑ | facet_local12 | Database Format | en_US |
| ☑ | facet_local15 | Database Subject | en_US |

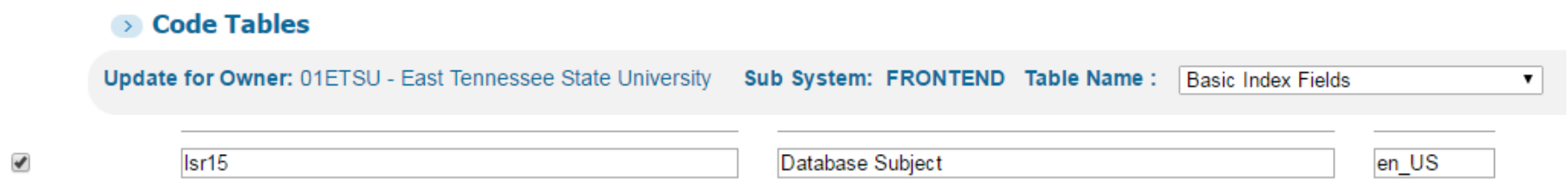


# Facet Code Fields

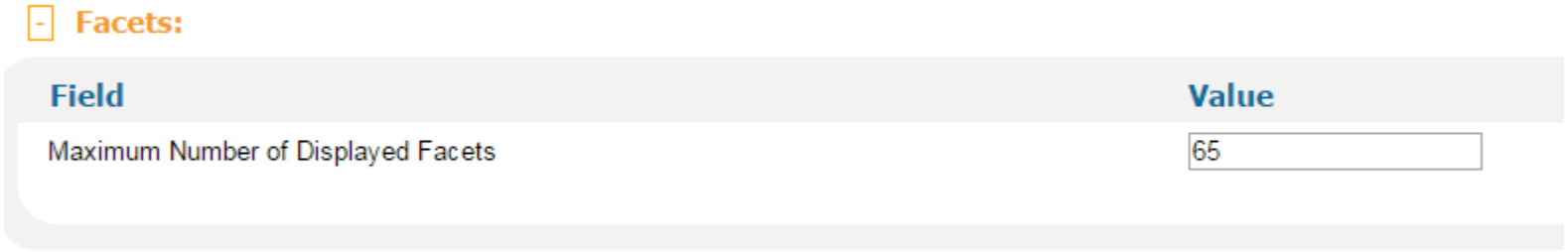



**Consider making A-Z Subjects a static facet**




**Allows custom fields to be searchable**




**Search Engine Configuration**

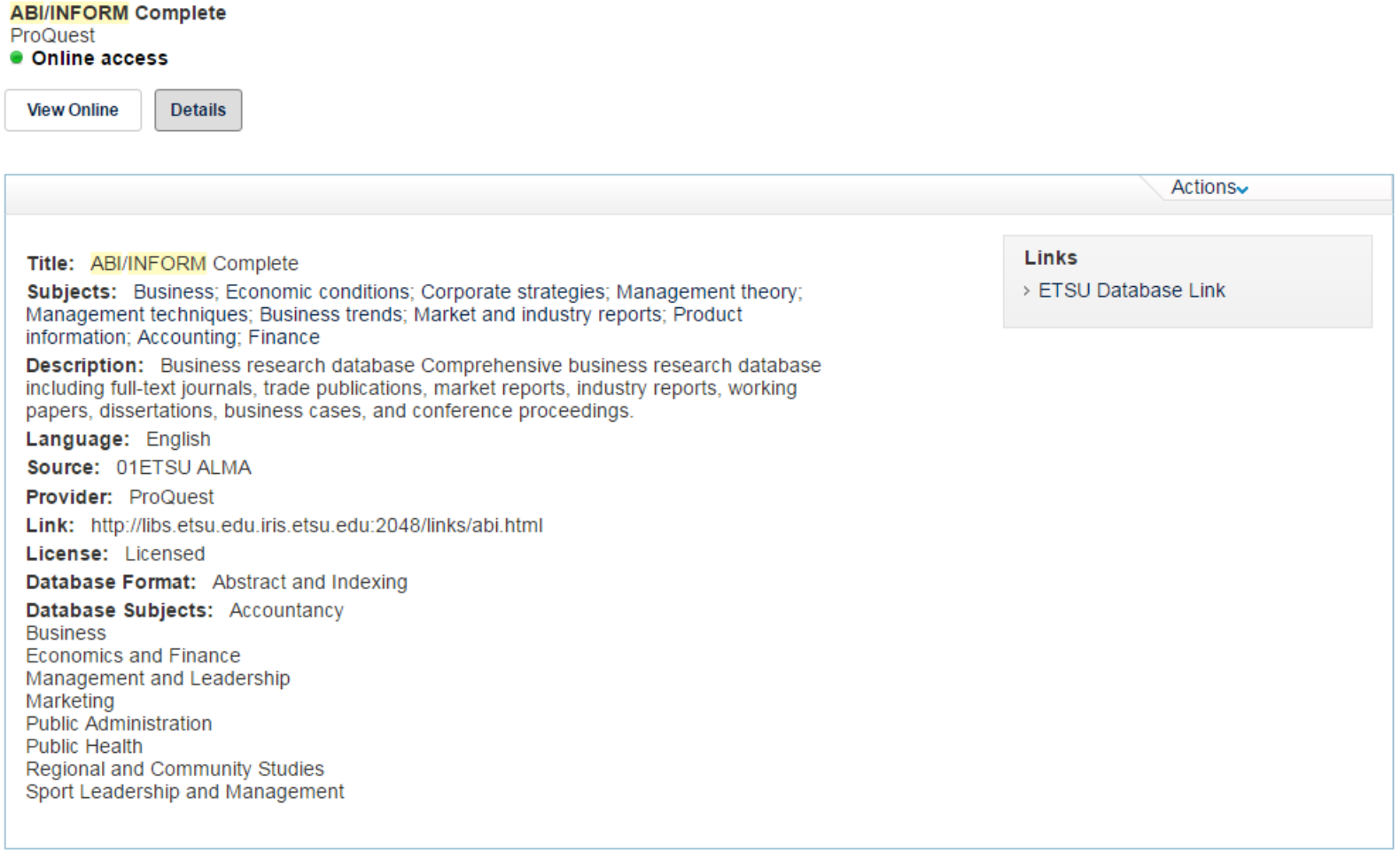
## Facets to display

| Type | Items to Display | Sort | default_tab | lib_tab |
|---|---|---|---|---|
| Database Format | 10 | alpha_numeric | ☑ | ☑ |
| Database Subject | 10 | alpha_numeric | ☑ | ☑ |
| Database Provider | 10 | alpha_numeric | ☑ | ☑ |

## Field to display in the full results

| Field | |
|---|---|
| Provider | Edit |
| Link | Edit |
| License | Edit |
| Database Format | Edit |
| Database Subjects | Edit |

**View Configuration**


ABI/INFORM Complete
ProQuest
Online access
View Online
Details
Actions
Title: ABI/INFORM Complete
Subjects: Business; Economic conditions; Corporate strategies; Management theory; Management techniques; Business trends; Market and industry reports; Product information; Accounting; Finance
Description: Business research database Comprehensive business research database including full-text journals, trade publications, market reports, industry reports, working papers, dissertations, business cases, and conference proceedings.
Language: English
Source: 01ETSU ALMA
Provider: ProQuest
Link: http://libs.etsu.edu.iris.etsu.edu:2048/links/abi.html
License: Licensed
Database Format: Abstract and Indexing
Database Subjects: Accountancy
Business
Economics and Finance
Management and Leadership
Marketing
Public Administration
Public Health
Regional and Community Studies
Sport Leadership and Management
Links
ETSU Database Link

# Primo View

Step 5:

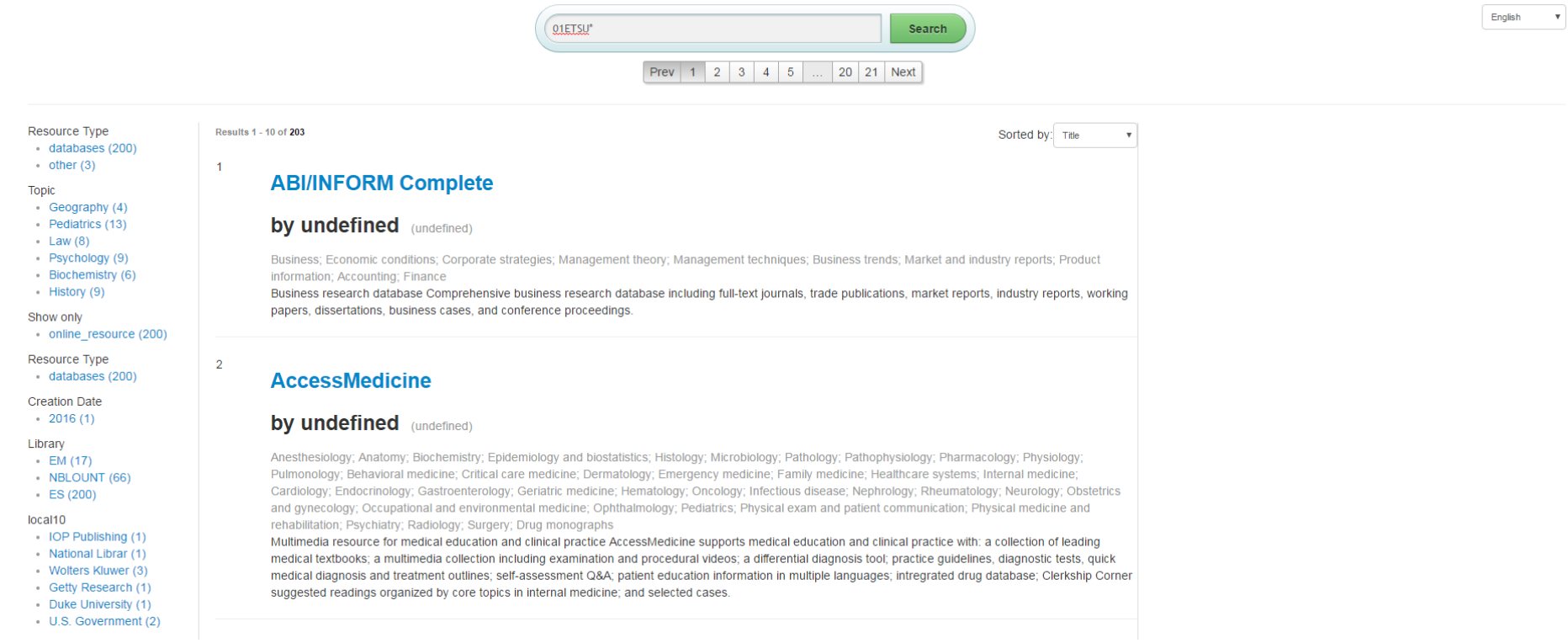
# Primo X-Services

ExLibris Developers Site:

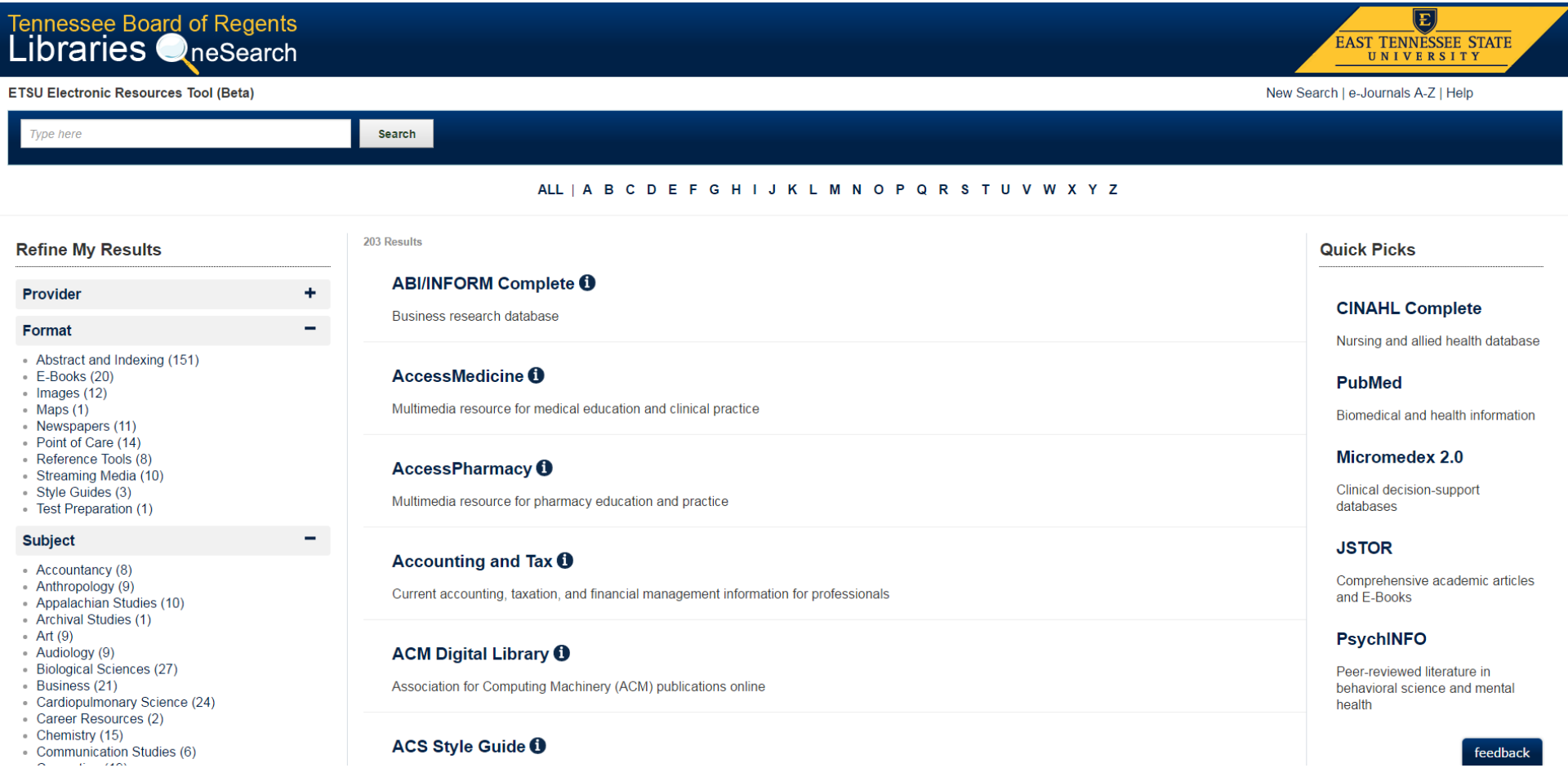
https://developers.exlibrisgroup.com/primo/apis/webservices/gettingstarted

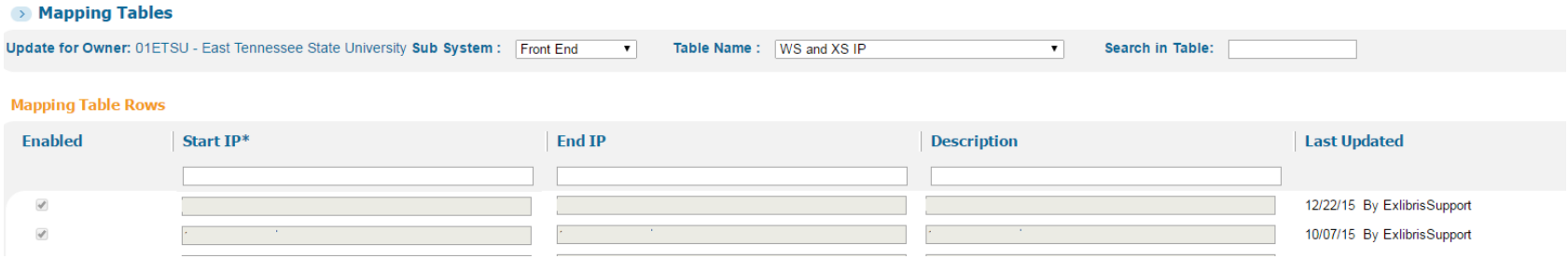
- API Demo
- API Current
- API Calls

# X-Services API (Unmodified)



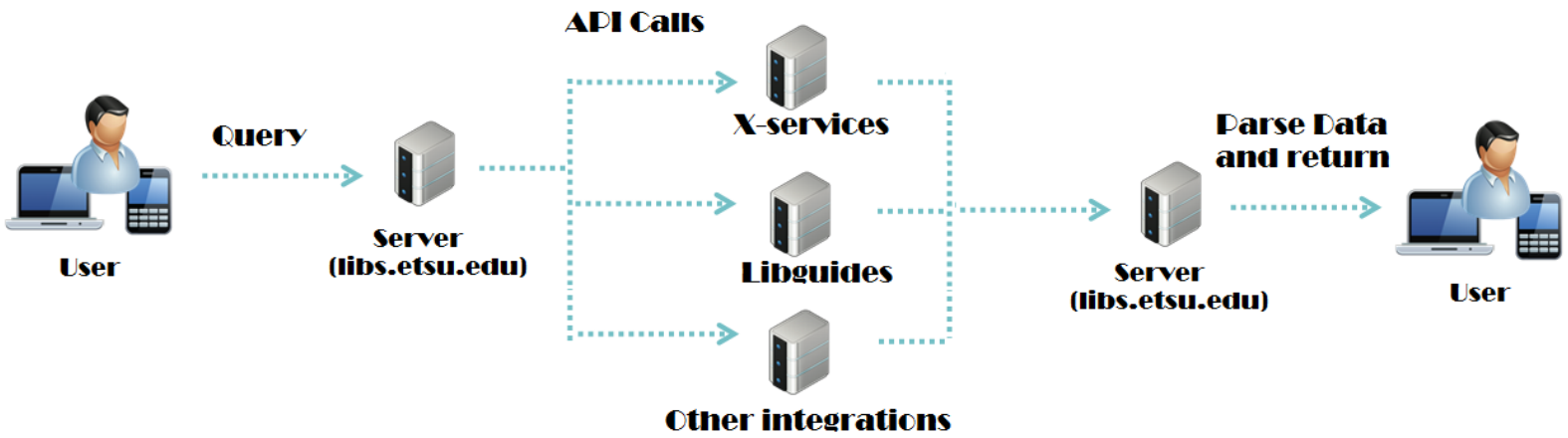
# X-Services API (Current)






# SalesForce Case – Add IP's to mapping table

# API Diagram


API Calls
X-services
Query
Parse Data
and return
User
Server
(libs.etsu.edu)
Libguides
Server
(libs.etsu.edu)
User
Other integrations

# API Call – PHP or Javascript?

- Originally, the X-Services API used Javascript/AJAX to make calls to Primo.
- This only allowed access to the tool on certain machines, as the calls are restricted by IP and AJAX calls were being made from the client side.
- To make this more broadly useful, we used PHP and CURL to make the calls from the server side as follows:

# API Call – CURL

```
$institution = '01ETSU';
$bulkSize = '300';
$index = '1';
$sortField = 'stitle';
$lang = 'eng';
$json = 'true';
$loc = 'local,scope:(ETSU_DB)';
$callback = 'parseResponse';
$query = 'any,contains,01ETSU*';
$request = "http://etsu-edu-primo.hosted.exlibrisgroup.com/PrimoWebServices/xservice/search/brief?institution=$institution&query=$query&bulkSize=$bulkSize&indx=$index&sortField=$sortField&lang=$lang&json=$json&loc=$loc";
$ch = curl_init($URL);
curl_setopt($ch, CURLOPT_RETURNTRANSFER, true);
curl_setopt($ch, CURLOPT_TIMEOUT, 30);
curl_setopt($ch, CURLOPT_HTTPHEADER, array("Content-Type: application/json; charset=utf-8","Accept:application/json, text/javascript, */*; q=0.01"));
curl_setopt($ch, CURLOPT_URL, $request);
$output = curl_exec($ch);
// Close request to clear up some resources
curl_close($ch);
```

Step 6:

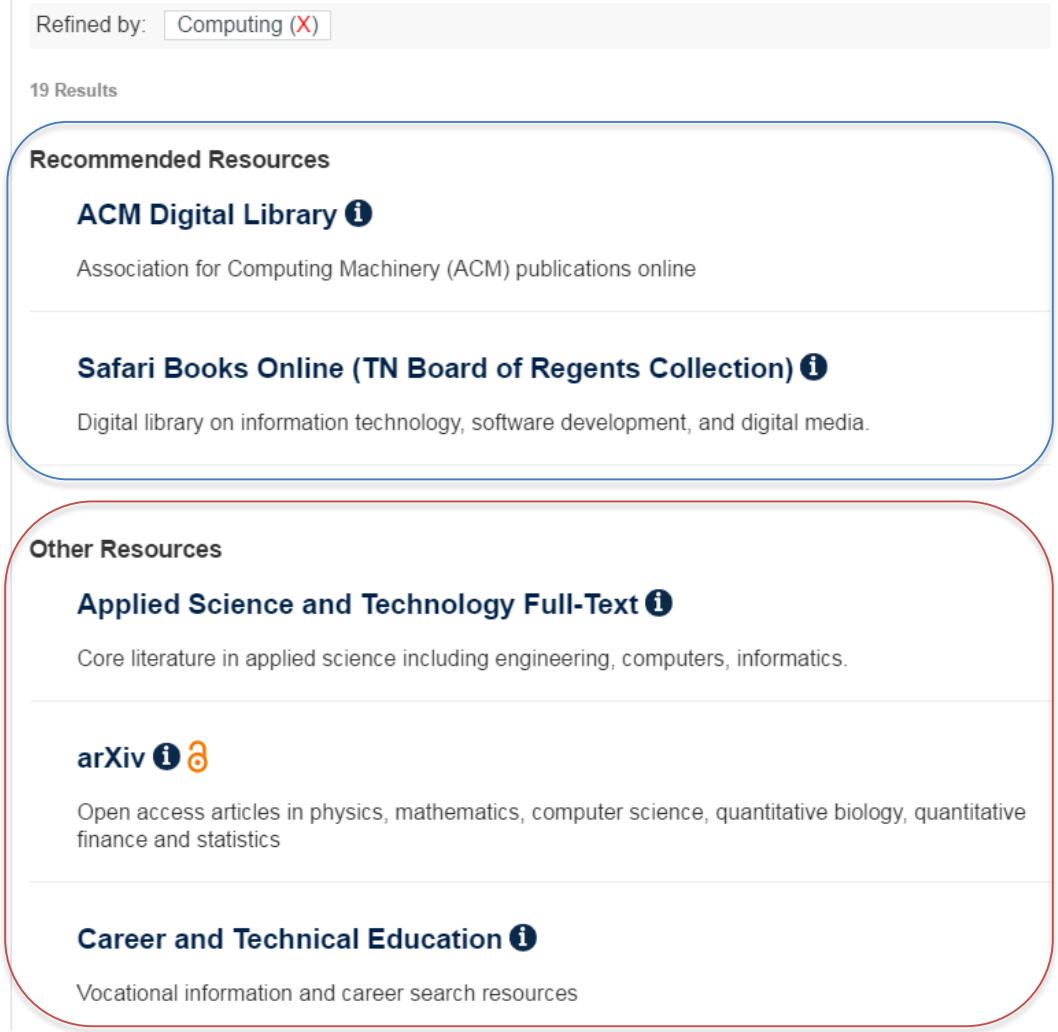
**A-Z List Development**

- Facets
- Quick Picks
- Navigation
- Course Guides
- Report a Resource

# Additional Features – Facet Break Down

- The standard facets in the original X-Services API code were not consistent with our goals (Resource Type, Show Only, Creation Date, etc)
- Instead, we added multiple local fields to address our needs. The new facets we use in this Resources Tool include Provider, Format, and Subject. The following video shows what happens when a facet is used to narrow results:

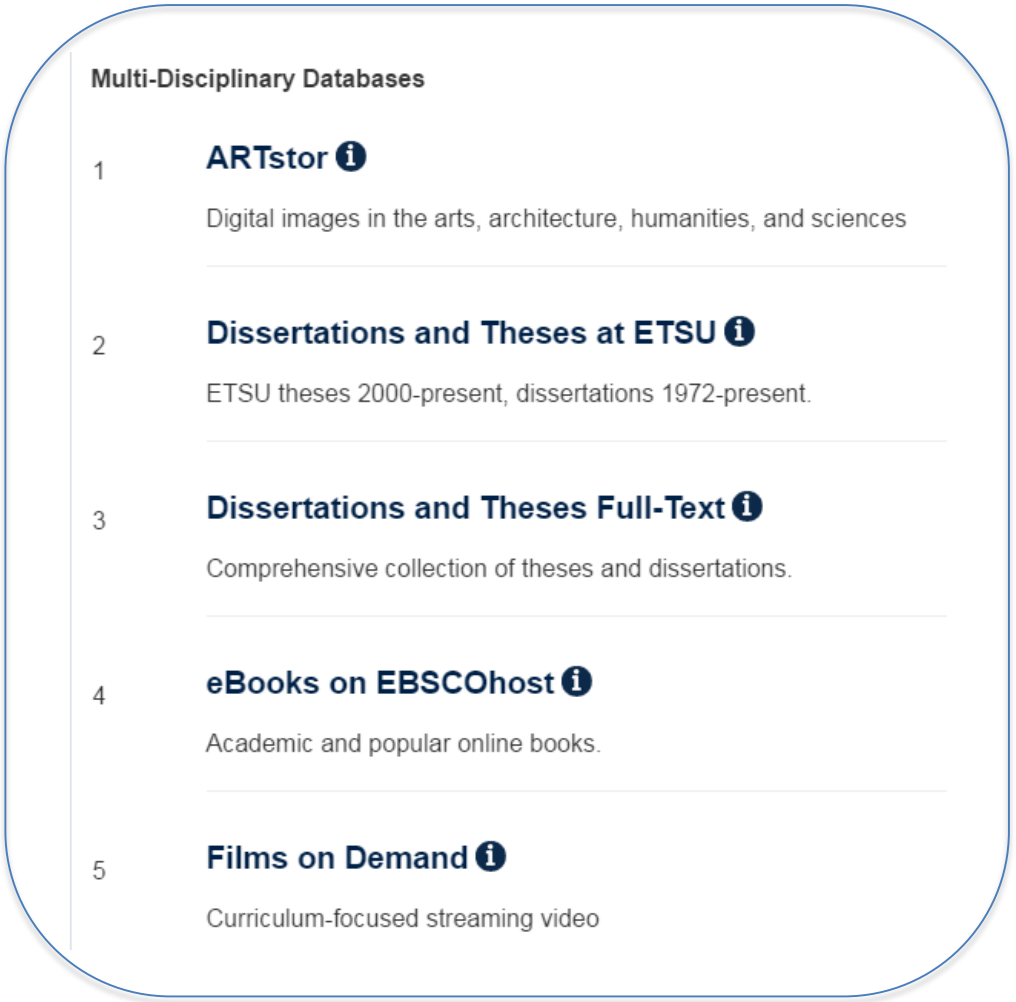
# Facet Break Down




Represents the “best bet” databases for a subject hand-picked by our librarians

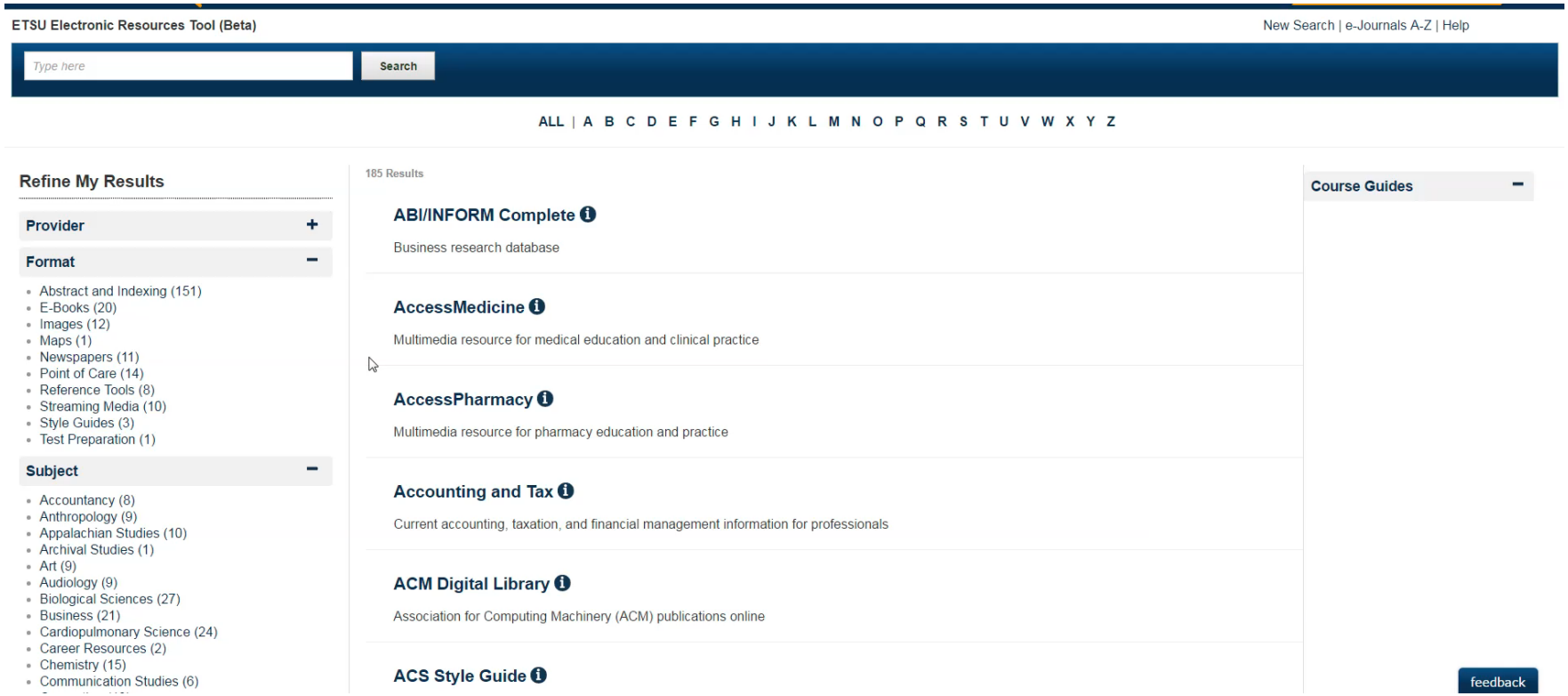
Remaining databases that are tagged with the subject computing

# Facet Break Down



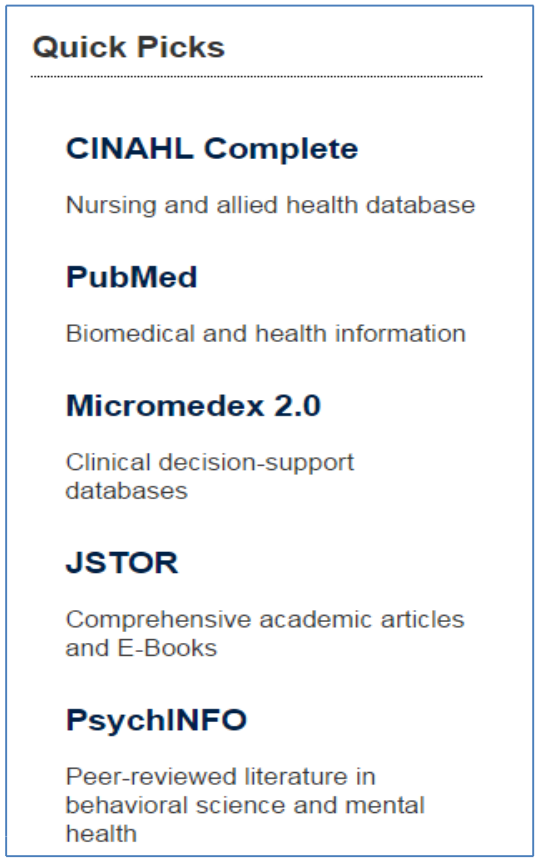

Multi-Disciplinary databases are pulled into all searches and refinements. These results are placed at the bottom of a search.

# Facet Break Down - Video



# Additional Features - Quick Picks

- Quick Picks represents our 5 most commonly used databases. We obtain this data from Google Analytics which tracks the usage of our database links from all library sites.



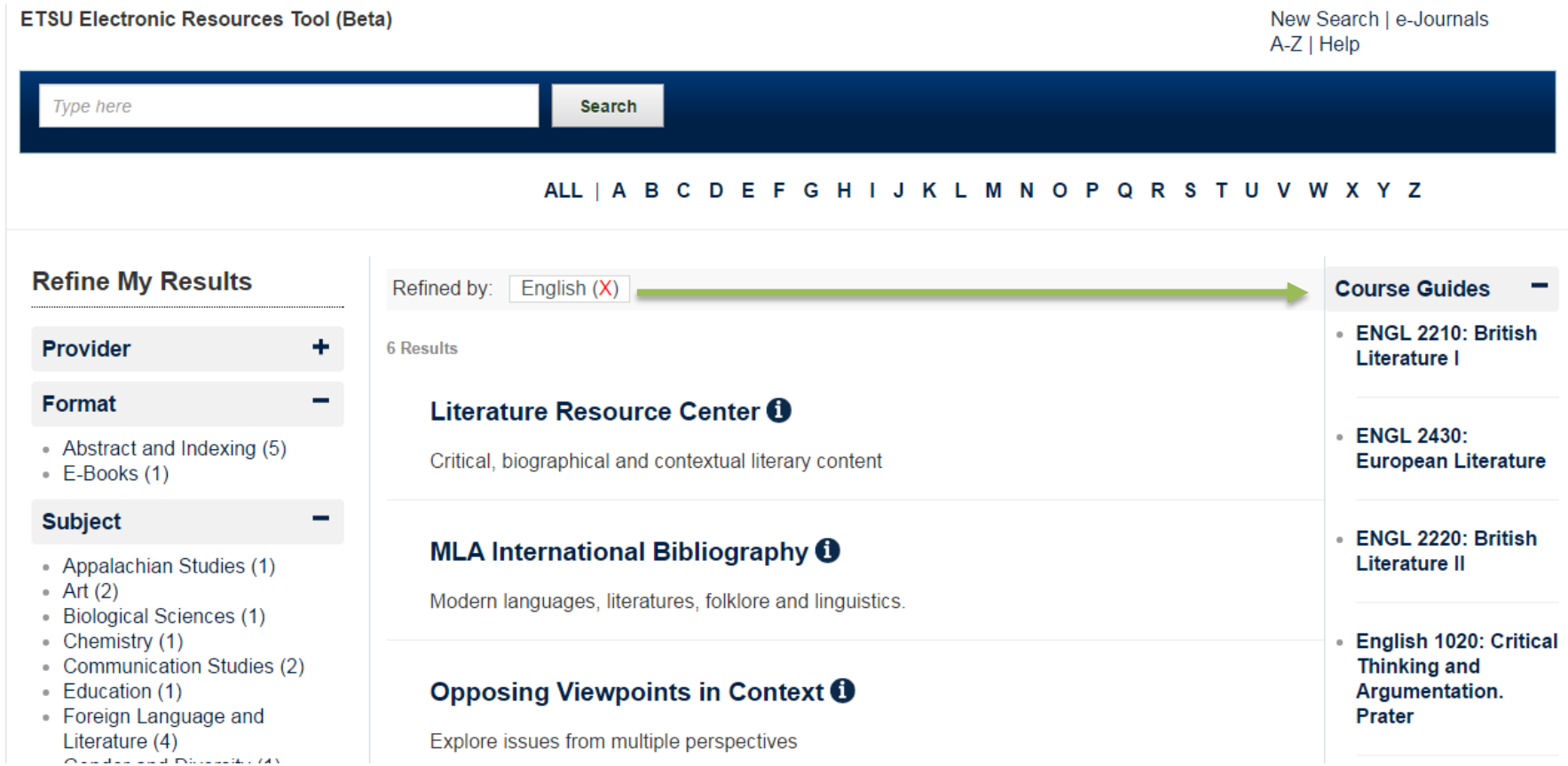
# Additional Features – A to Z Navigation

- Remove Native Pagination
- Add A-Z Navigation
  - A-Z Navigation is achieved using anchor tags corresponding to the first letter of each database

# Additional Features – Course Guides

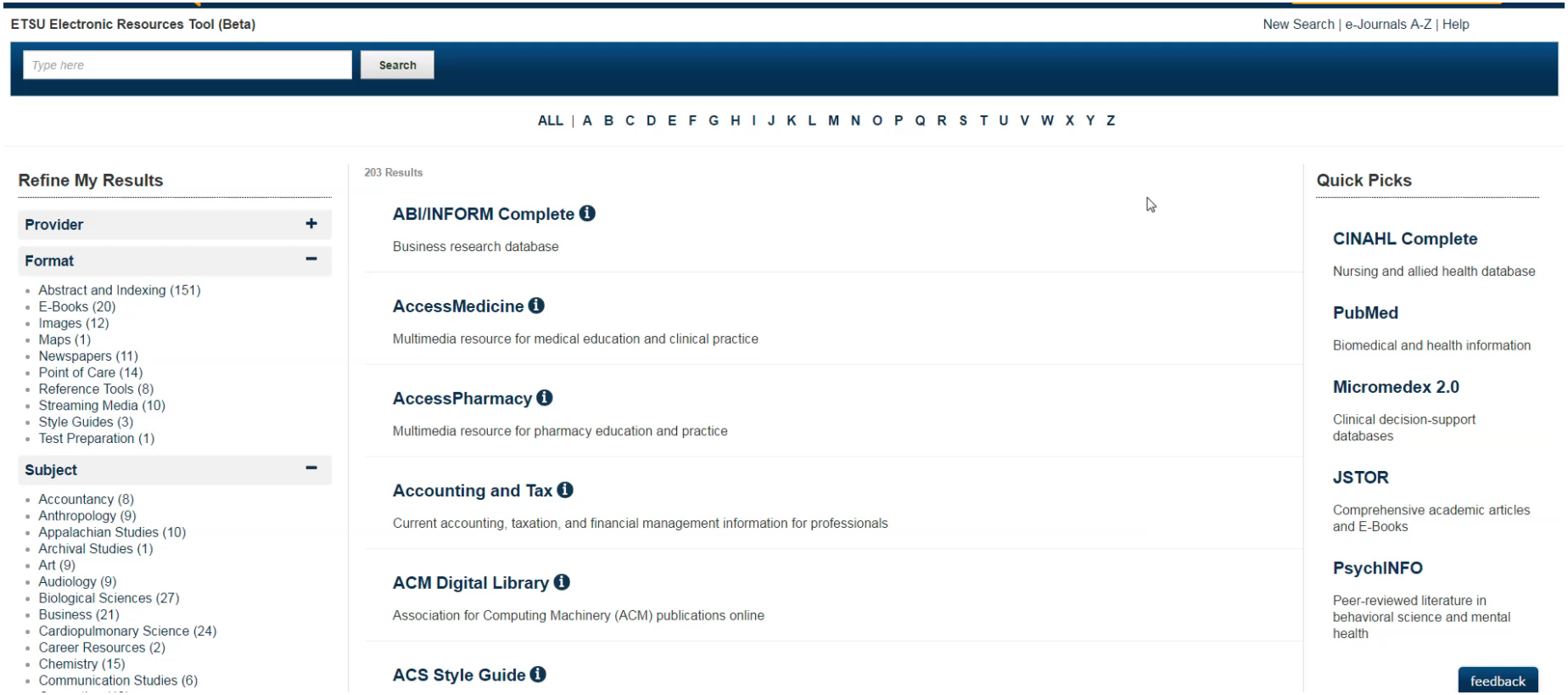
- In order to eliminate the need for students to search in multiple areas when doing research, we use the LibGuides API to pull in results from our course guides as well. This searches our course guides and returns results based on tags that correspond to the entered search term and to the subject facets. Once the result set has been broken down, either by a search query or by refinement using facets, Course Guides will replace Quick Picks in the right sidebar.
- The following video demonstrates the inclusion of Course Guides:

# Course Guides



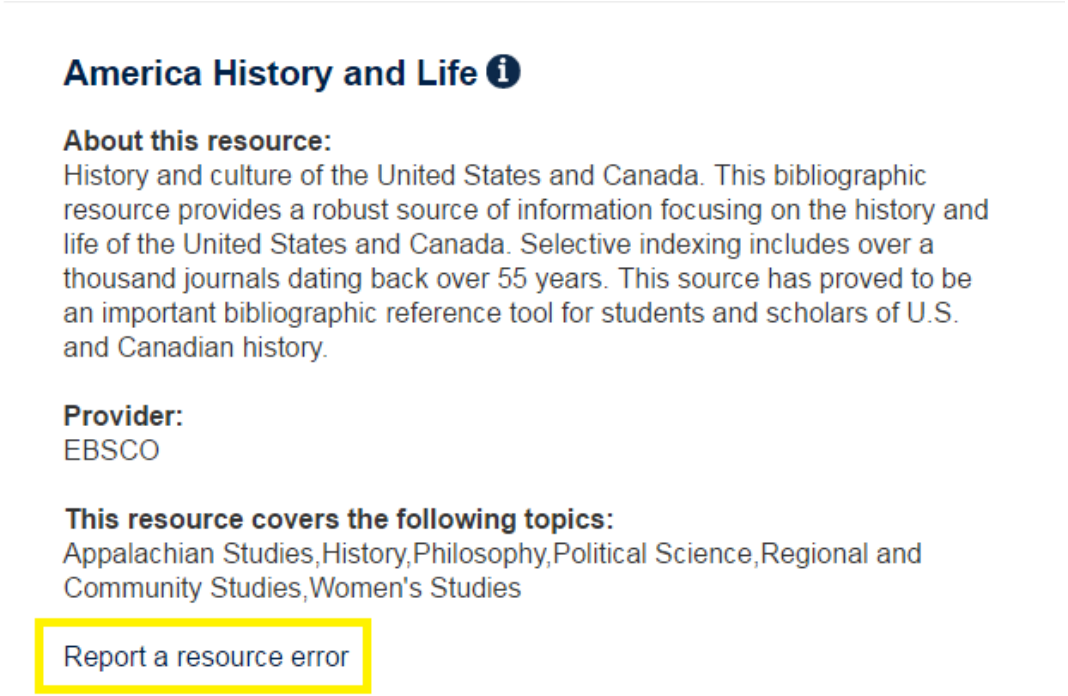

When a search or refinement is conducted, the 'quick picks' section on the right is replaced with our Course Guides corresponding to that search.

# Course Guides - Video



## Additional Features – Integrated Help Desk

- Another feature that makes this system more useful for our users is integration with our help desk ticketing system.
- This allows users to provide feedback if there is a problem with a resource, and automatically provides information about the resource to allow quicker resolution.



## Database Details

**ABI/INFORM Complete** ⓘ

Business research database

**ABI/INFORM Complete** ⓘ /display/title

**About this resource:**
Business research database Comprehensive business research database including full-text journals, trade publications, market reports, industry reports, working papers, dissertations, business cases, and conference proceedings.

/display/description

**Provider:**
ProQuest /display/lds10

**This resource covers the following topics:**
Accountancy,Business,Economics and Finance,Management and Leadership,Marketing,Public Administration,Public Health,Regional and Community Studies,Sport Leadership and Management

/display/lds15

Report a resource error

# Lessons Learned

- A-Z Go Live -> Shortly
- Updates made to MARC takes 24 hours to reflect in Primo and A-Z list
  - URL permalinks help
  - Faster updates – Develop A-Z using Alma API
- LibGuides – Still working on exports
- Goals: Overall Success

# Questions?

- Travis Clamon (clamon@etsu.edu)
- Jacob Kindle (kindle@etsu.edu)

- http://libs.etsu.edu/sherrod/databases