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Marketing Book Collections: Creating Digital Displays Using Alma Analytics

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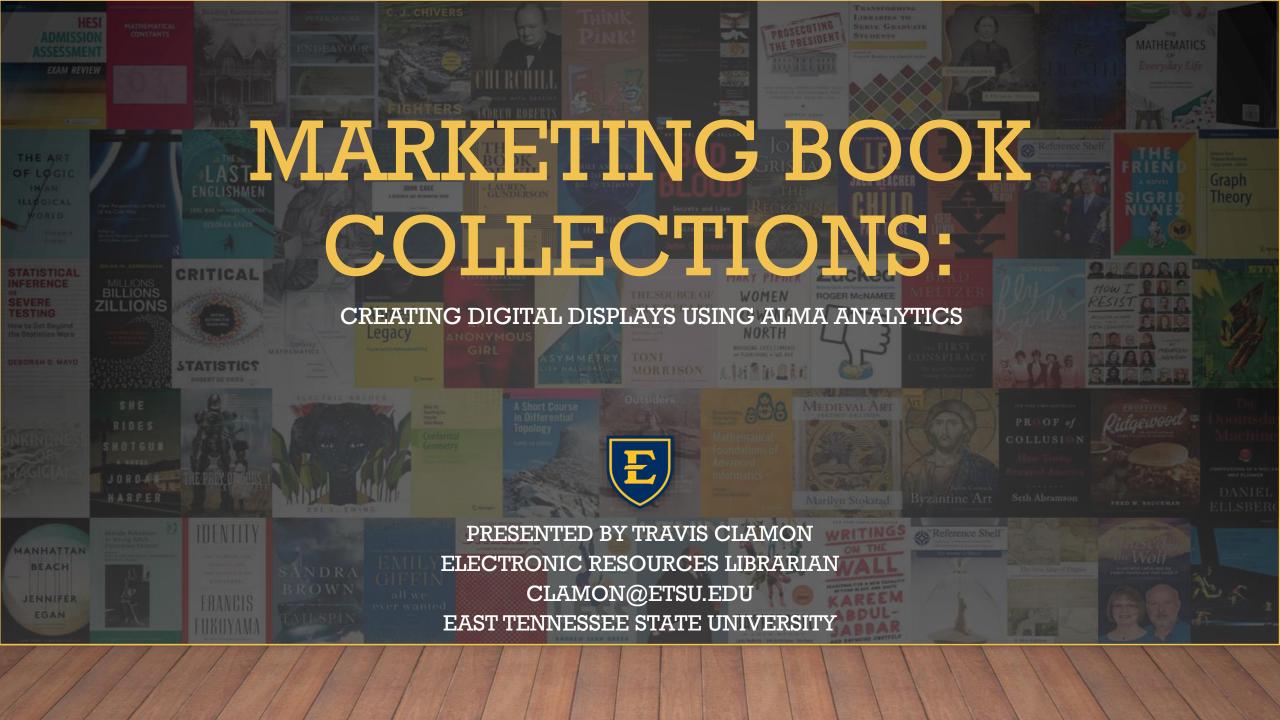
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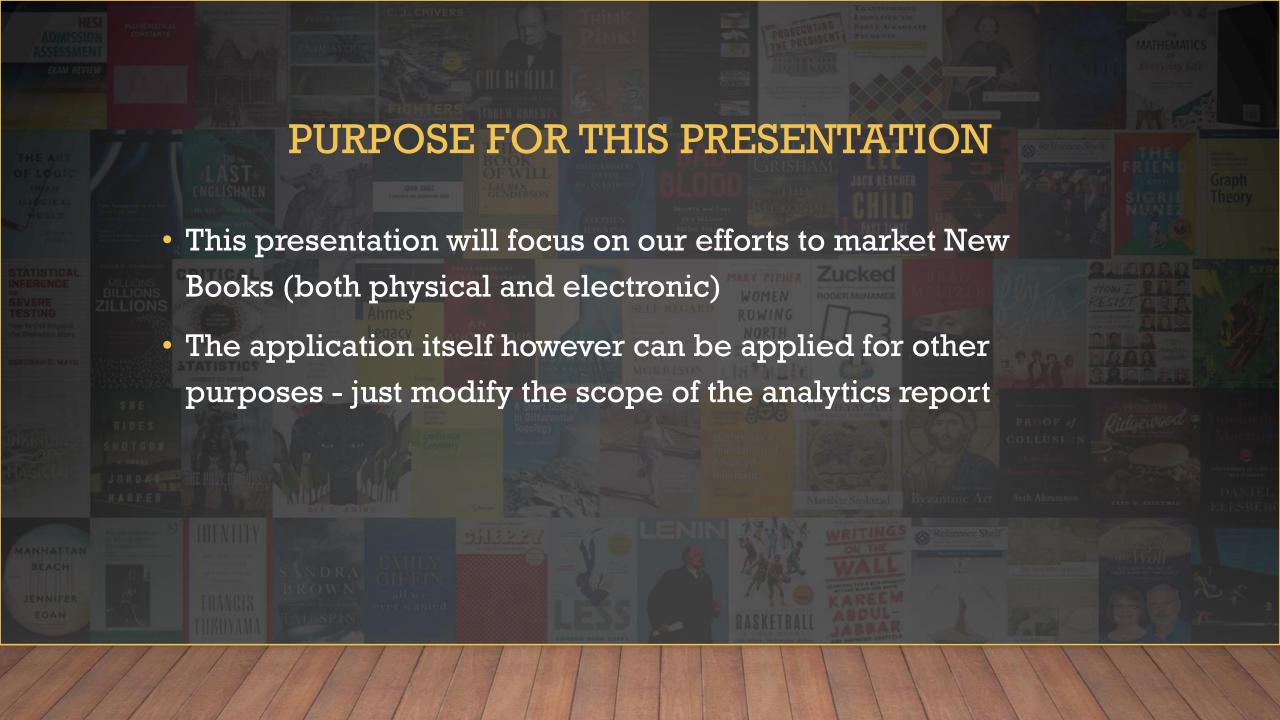
Citation Information

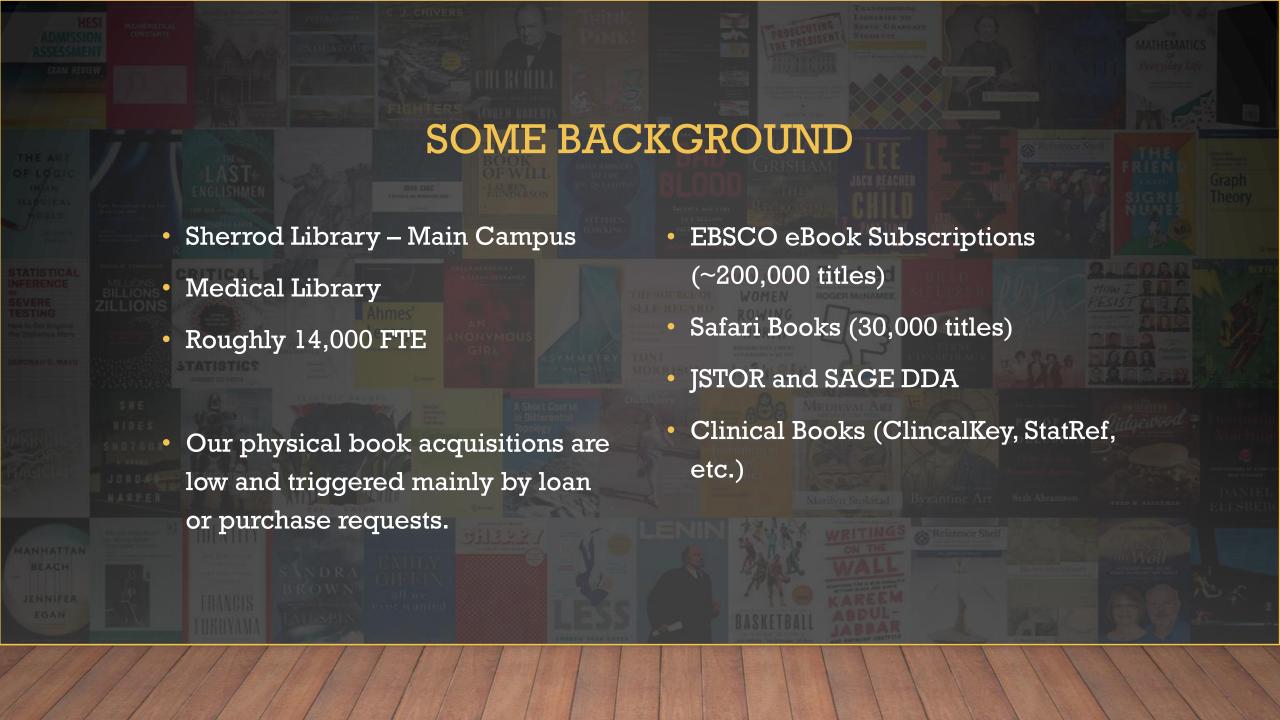
Clamon, Travis. 2019. Marketing Book Collections: Creating Digital Displays Using Alma Analytics. Ex Libris Users of North America, Atlanta, GA. https://el-una.org/meetings/eluna-2019/schedule/eluna-2019-program/?ps-dt=20190502&ps-uid=22951&psv=917-21088

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Marketing Book Collections: Creating Digital Displays Using Alma Analytics

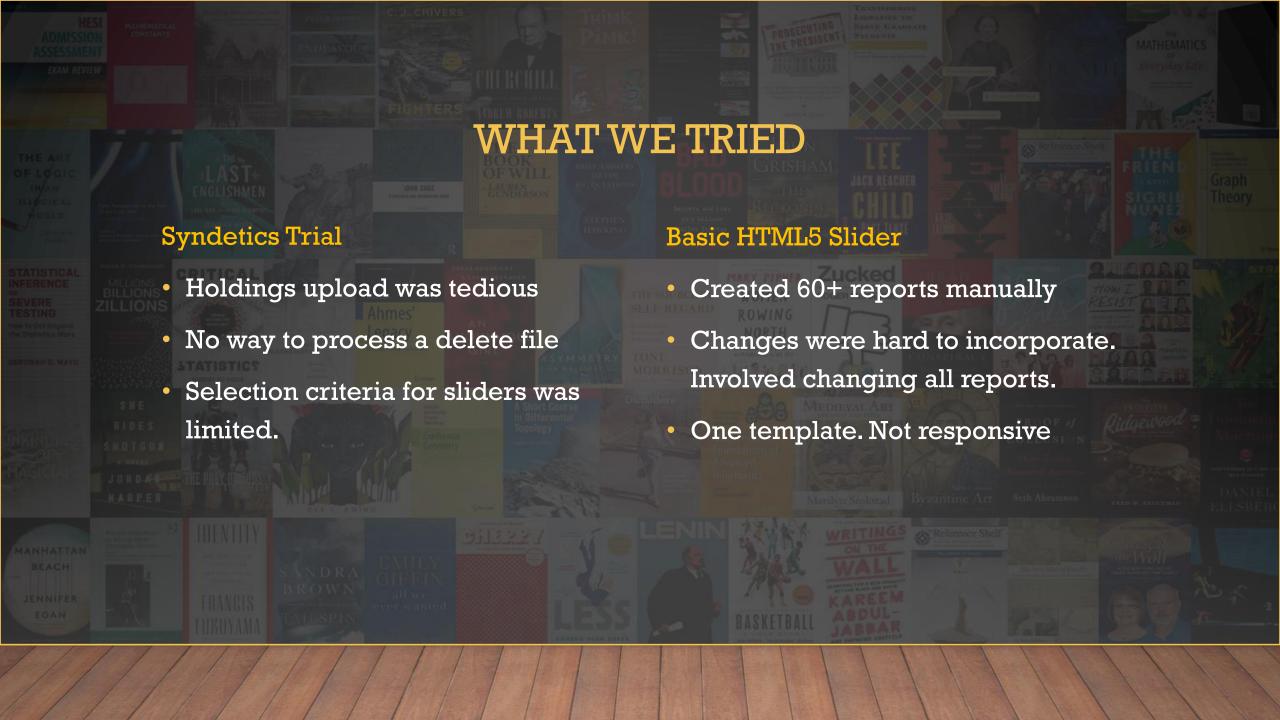






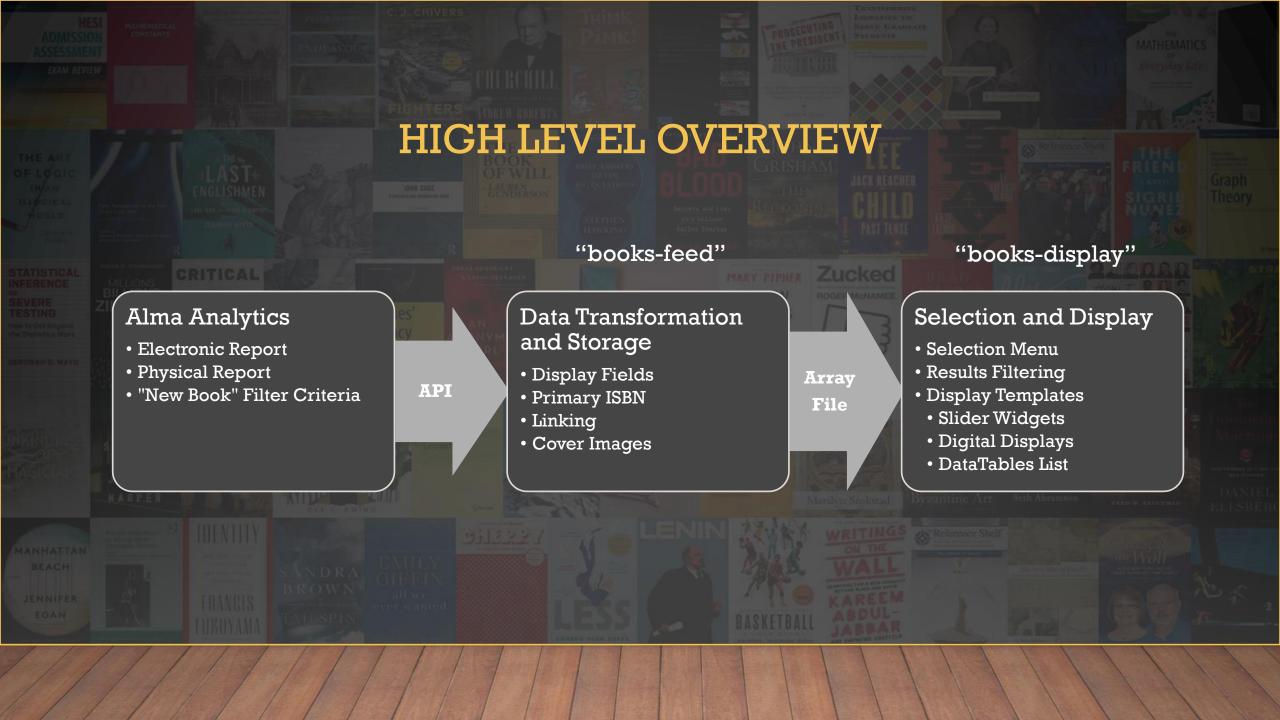


- We rely on the expectation that users will periodically search our systems to discover newly acquired titles.
- Static lists and displays require tedious time and effort to maintain
- Electronic Book subscriptions models are dynamic. The number of additions and deletions often reaches the thousands as eBook vendors release updates throughout each semester.
- Physical displays only reaches inhouse users.











ALMA ANALYTICS – FIELDS

Phys	ical It	ems R	enort
			COLU

E-Inventory Report

Title Author ISBN

Publication Date

Upload Date

Subjects

LC Classification Group

Call Number

Location Code

Location Name

Collection

MMS_ID

Bibliographic Details -> Title
Bibliographic Details -> Author

Bibliographic Details -> ISBN (Normalized)

Bibliographic Details -> Publication Date

Physical Item Details -> Creation Date

Portfolio Creation Date -> Portfolio Creation

Date

Bibliographic Details -> Subjects

LC Classifications -> Group l

LC Classifications -> Group2

LC Classifications -> Group3

LC Classifications -> Group4

Holding Details -> Permanent Call Number

N/A

Location -> Location Code

N/A

Location -> Location Name

N/A

N/A

Electronic Collection -> Electronic Collection

Public Name

Bibliographic Details -> MMS Id



E-INVENTORY REPORT FILTERS

✓ Filters



Add filters to the analysis criteria by clicking on Filter option for the specific column in the Selected Columns pane, or by clicking on the filter button in the Filter pane header. Add a saved filter by clicking on add button after selecting its name in the catalog pane.

Publication Date contains any YEAR(CURRENT_DATE)+1; YEAR(CURRENT_DATE); YEAR(CURRENT_DATE)-1; YEAR(CURRENT_DATE)-2

AND W No. of Portfolio (In Repository) is not equal to / is not in 0

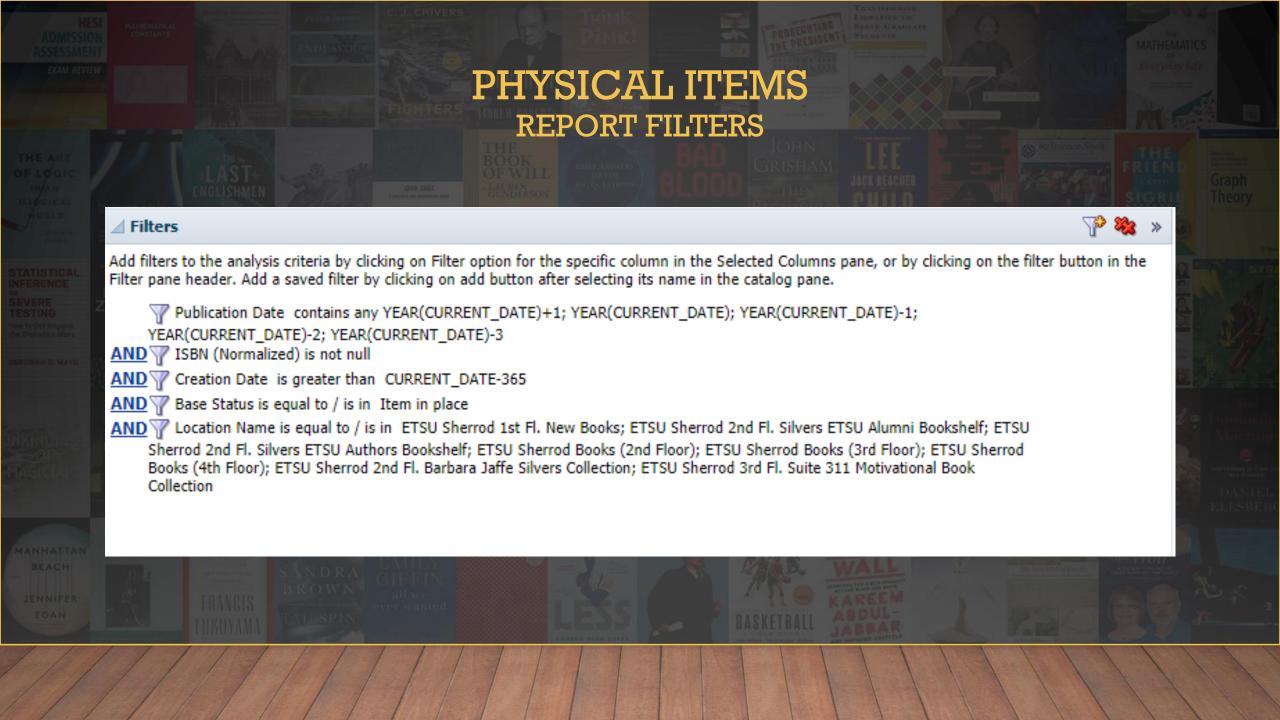
AND TISBN (Normalized) is not null

AND Portfolio Creation Date is greater than CURRENT_DATE-180

AND W Availability is equal to / is in Available

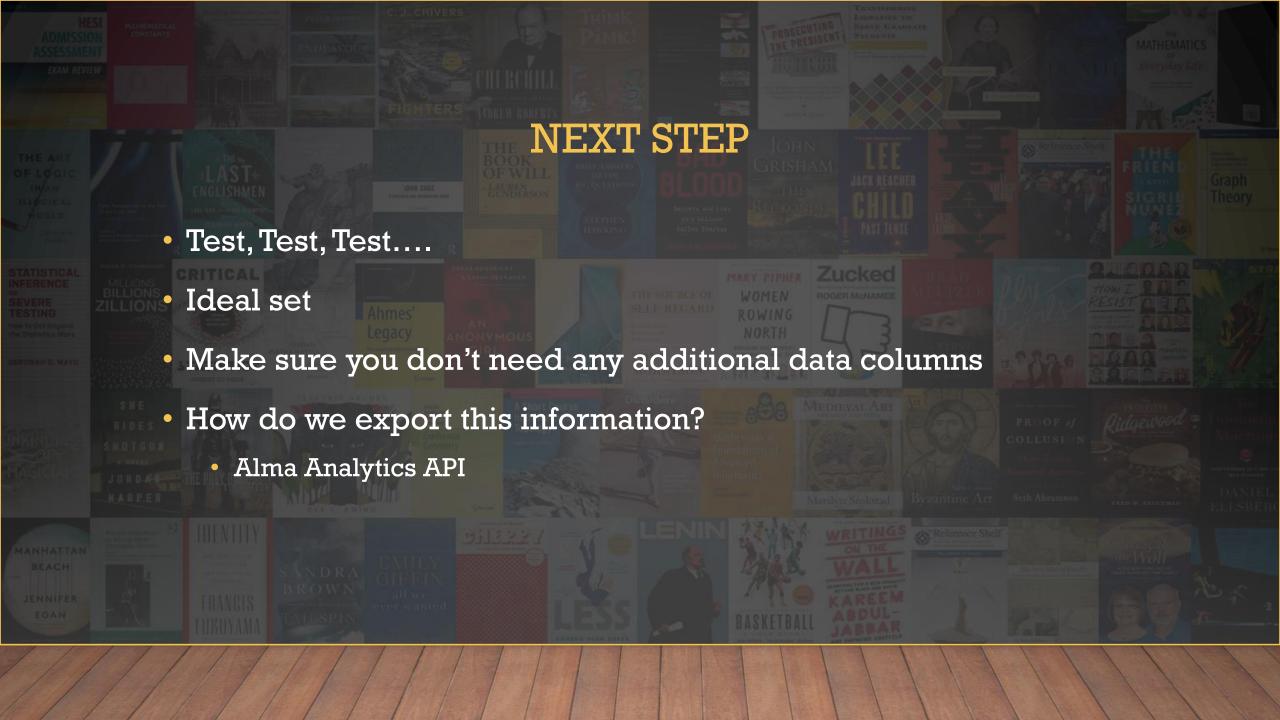
AND Available For Group Members contains any ETSU Quillen College of Medicine Library; emain; eva; ETSU Quillen College of Medicine Library; emain; eva; nescc; emain; eva; emain; eva; nescc

AND Telectronic Collection Public Name is equal to / is in AHA eBooks Library; APA PsycBooks; APA Style Central; Access Medicine; AccessPharmacy; ClinicalKey Books; EBSCO eBooks Business Collection; EBSCO eBooks Clinical Collection; EBSCO eBooks EngineeringCore Collection; EBSCO eBooks History Collection; EBSCO eBooks Religion Collection; EBSCOhost Academic eBook Collection (North America); EBSCOhost Ebooks; ENGnetBASE; ENGnetBase; Elsevier ClinicalKey Books; JSTOR Books; JSTOR E-Books; PsycINFO; R2 Digital Library; Safari Books Online; STAT!Ref Medical E-Books; Stat!Ref Nursing E-Books; SAGE Research Methods; Sage Knowledge E-Books; Taylor & Francis eBooks (Perpetual Access); Taylor & Francis Evidence Based Acquisition eBooks; Thieme MedOne E-Book Library

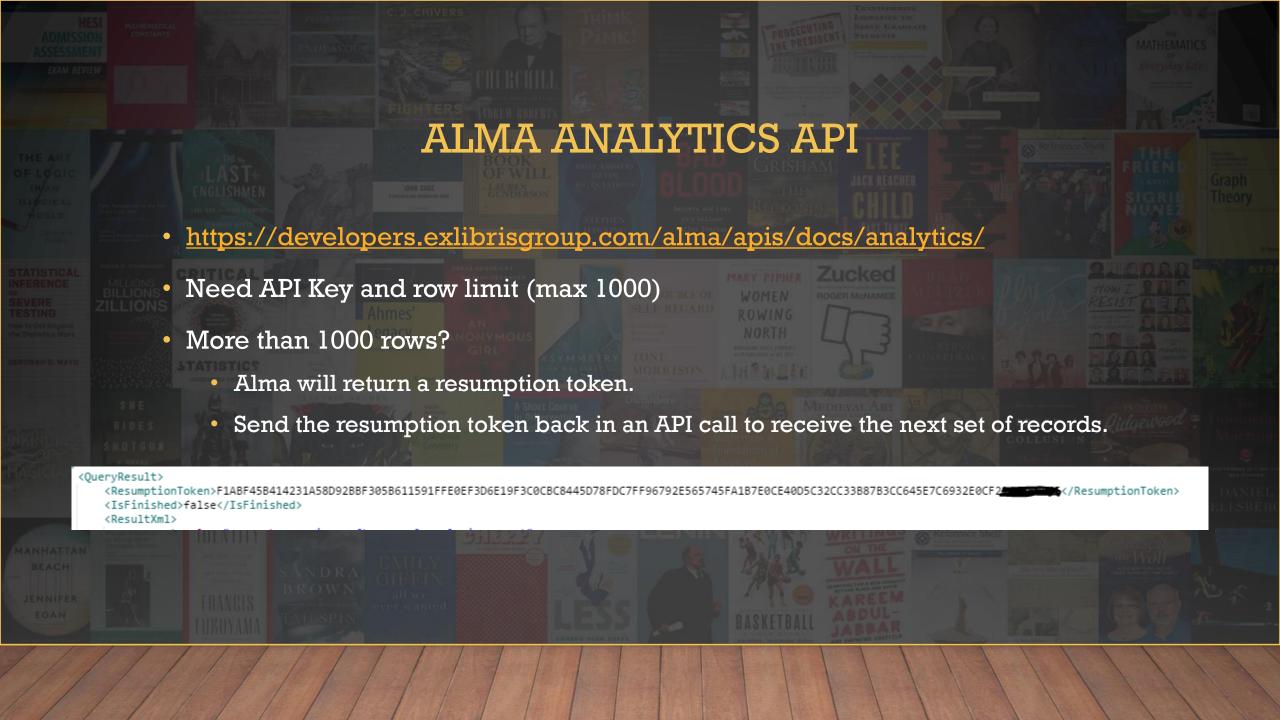


PHYSICAL ITEMS EXAMPLE

	Item Id	Title	Author	Publication Date	(Normalized)	Group1	·	Group3	Group4	LC Classification Code	Classification Number	Status	Туре	Modification Date	Date	Subjects	Code	Location Name	Permanent Call Number
99186678302331	23173476500002331	The bitter season /	Hoag, Tami, author.	[2016]	0525954554; 9780525954552; 9780698190832; 0698190831	American literature	1961-2000			PS	3,558.0	Item in place	Book	2/27/2019	6/19/2018	PoliceMinnesotaMinneapolis Fiction.; Cold cases (Criminal investigation)Fiction.; Murder InvestigationFiction.; Kovac, Sam (Fictitious character)Fiction.; Liska, NikkiFiction.; FICTIONMystery & DetectivePolice Procedural.; FICTIONSuspense.; Mystery fiction.; Suspense fiction.; Detective and mystery fiction; Thrillers (Fiction)		ETSU Sherrod Books (4th Floor)	PS3558.0333 B58 2016
99245779402331		Teaching students with special needs in general education classrooms /		[2017]	9780134017563;	Special aspects of education	Inclusive education			LC	1,201.0	Item in place	Book	9/4/2018	8/13/2018	Inclusive educationUnited States.; Special educationUnited States.; Mainstreaming in educationUnited States.; Inclusive education.; Mainstreaming in education.; Special education; United States			LC1201 .L48 2017
99275487702331	23173626400002331	Lillian Boxfish takes a walk /	Rooney, Kathleen, 1980- author.	2017.	1250113326; 9781250113320; 9781250113337; 1250113334	American literature	2001-			PS	3,618.0	Item in place	Book	7/2/2018		City and town lifeNew York (State) New YorkFiction.; Interpersonal relationsFiction.; Older women Fiction.; ReminiscingFiction.; City and town life.; Interpersonal relations; Older women.; Reminiscing.; New York (State)New York; Biographical fiction.; Fiction.; Historical fiction.; Psychological fiction.		ETSU Sherrod 2nd Fl. Barbara Jaffe Silvers Collection	PS3618.0676 L55 2017
99275872802331		HESI Admission Assessment exam review /		[2017]		(General)	Medical education. Medical schools. Research			R	838.5	Item in place	Book	3/7/2019	2/11/2019	Health occupations schoolsEntrance examinationsStudy guides.; Medical collegesEntrance examinationsStudy guides.; Health Occupations.; Examination Question.; Health occupations schoolsEntrance examinations.; Medical collegesEntrance examinations.; Study guides.		ETSU Sherrod Books (4th Floor)	R838.5 .E96 2017
99279486802331	23173626310002331	History of wolves : a novel /	Fridlund, Emily, author.	2017.	0802125875; 9780802125873; 9780802189776; 0802189776		2001-			PS	3,606.0	Item in place	Book	11/16/2018	6/25/2018	Teenage girlsFiction.; Belonging (Social psychology)Fiction.; Choice (Psychology)Fiction.; Secrecy Fiction.; Christian ScientistsFiction.; MinnesotaFiction.: Belonging (Social			PS3606.R536 H57 2017







THE API RESPONSE

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
(report>
   <OueryResult>
        <ResumptionToken>F1ABF45B414231A58D92BBF305B611591FFE0EF3D6E19F3C0CBC8445D78FDC7FF96
        <IsFinished>false</IsFinished>
        <ResultXml>
            <rowset xmlns="urn:schemas-microsoft-com:xml-analysis:rowset">
                <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:saw-sql="urn</pre>
                     <xsd:complexType name="Row">
                         <xsd:sequence>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column0" s w-sql:</pre>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column1" s_w-sql</pre>
                                  :string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column2" s w-sql:</pre>
                                  type="xsd:string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column3" s w-sql:</pre>
                                  :string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column4" sw-sql;</pre>
                                  ="xsd:string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column5" s w-sql:</pre>
                                  ="xsd:string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column6" s w-sql;</pre>
                                  :string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column7" s w-sql:</pre>
                                  :string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column8" s w-sql:</pre>
                                  ="xsd:string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column9" s w-sql;</pre>
                                  ="varchar" type="xsd:string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column10"</pre>
                                  ="double" type="xsd:double"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column11"</pre>
                                                                                            aw-sq]
                                  :string"/>
                              <xsd:element maxOccurs="1" minOccurs="0" name="Column12"</pre>
                                  :string"/>
                             <xsd:element maxOccurs="1" minOccurs="0" name="Column13"</pre>
                                  :string"/>
```

- Columns do not line up with visual analytics report
- Column names are generic
- Solved with mapping table in code

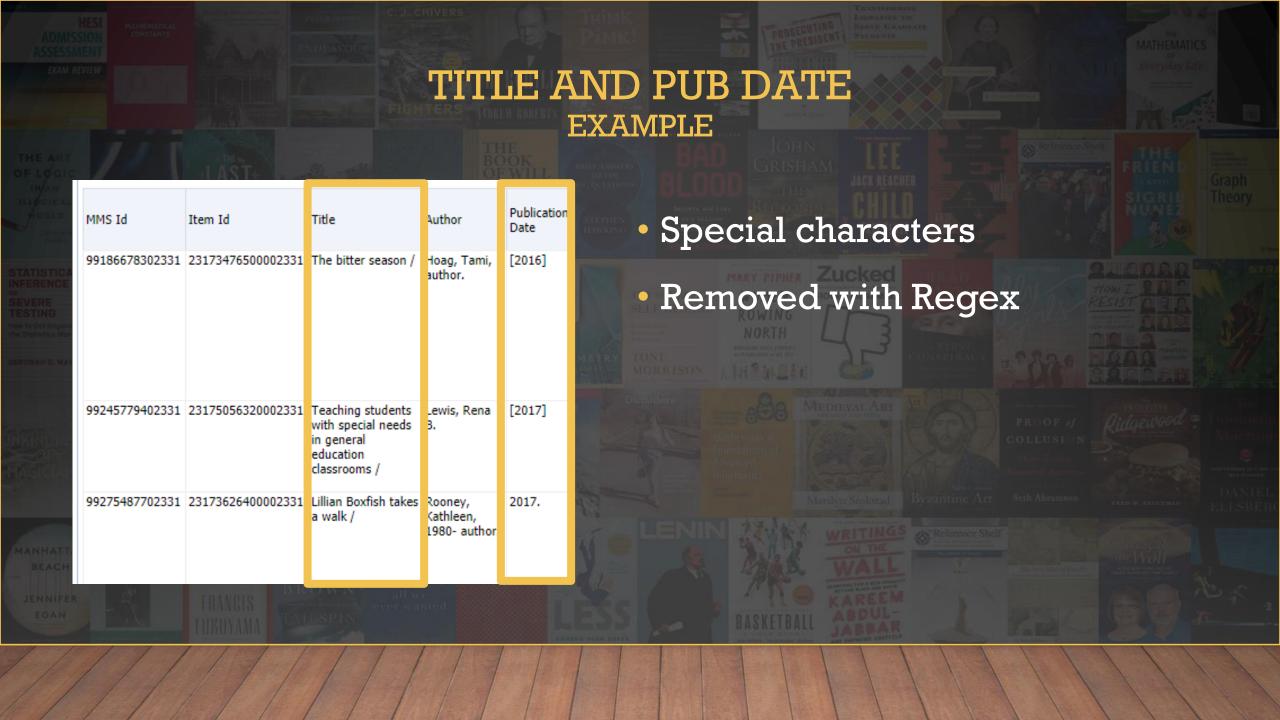
THE API RESPONSE

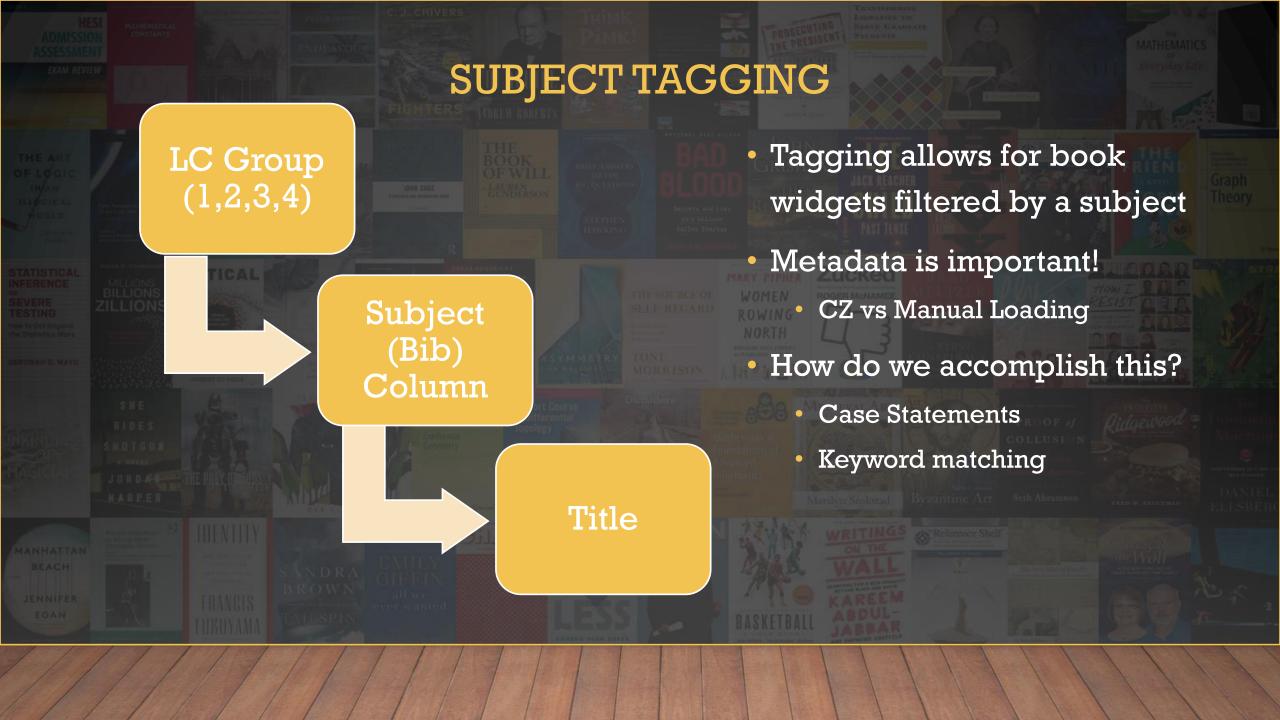
```
$print columns = array(
                        "title" => "Column7",
                        "author" => "Column1",
                        "portfolio id" => "Column19",
                        "mms id" => "Column3",
                        "isbn" => "Column2",
                        "pub date" => "Column5",
                        "upload date" => "Column18",
                        "mod date" => "Column21",
                        "group1" => "Column11",
                        "group2" => "Column12",
                        "group3" => "Column13",
                        "group4" => "Column14",
                        "call number" => "Column8",
                        "location" => "Column16",
                        "location code" => "Column15",
                        "ecollection name" => "",
                        "subjects" => "Column6"
                        );
```

```
$electronic columns = array(
                        "title" => "Column7",
                        "author" => "Column1",
                        "portfolio id" => "Column19",
                        "mms id" => "Column3",
                        "isbn" => "Column2",
                        "pub date" => "Column5",
                        "upload date" => "Column13",
                        "mod date" => "Column18",
                        "group1" => "Column9",
                        "group2" => "Column10",
                        "group3" => "Column11",
                        "group4" => "Column12",
                        "call number" => "",
                        "location" => "",
                        "location code" => "",
                        "ecollection name" => "Column8",
                        "subjects" => "Column6"
                        );
```









SUBJECT TAGGING – LC GROUP

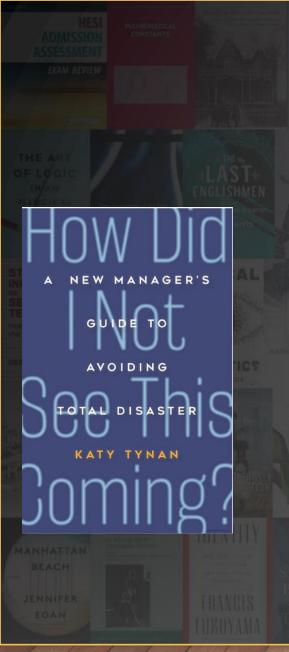
```
case "Human anatomy":
        array push ($subjects, "Anatomy and Physiology");
        break:
case "Physiology":
        array push ($subjects, "Anatomy and Physiology");
        break:
case "Anthropology":
        array push ($subjects, "Anthropology");
        break:
case "Visual arts":
        array push ($subjects, "Art");
        break:
case "Architecture":
        array push($subjects, "Art");
        break:
case "Sculpture":
        array push ($subjects, "Art");
        break:
case "Drawing. Design. Illustration":
        array push ($subjects, "Art");
        break:
case "Painting":
        array push ($subjects, "Art");
        break:
```

- Our custom subject vocabulary comes from our subject guides and academic programs
- LC Group Headings were identified for each custom subject
- Once the case statement finds a match, the tag is added and the operation stops.

SUBJECT TAGGING – SUBJECTS (BIB) AND TITLE

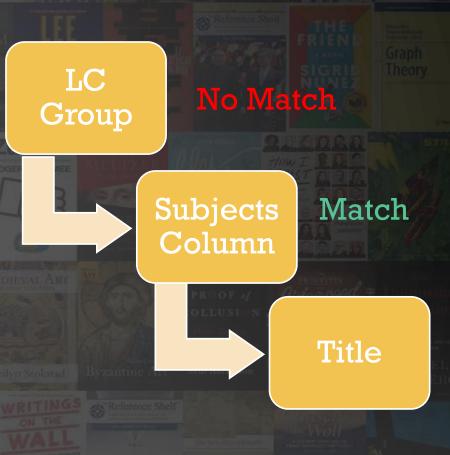
```
if (strpos($keyword, "drawing") !== false) {
     array push($subjects, "Art");
     break;
if (strpos($keyword, "painting") !== false) {
     array_push($subjects, "Art");
     break;
if (strpos($keyword, "astronomy") !== false) {
     array_push($subjects, "Astronomy");
     break;
 if (strpos($keyword, "audiology") !== false) {
     array_push($subjects, "Audiology");
     break;
if (strpos($keyword, "biology") !== false) {
     array push($subjects, "Biological Sciences");
     break;
if (strpos($keyword, "botany") !== false) {
     array push($subjects, "Biological Sciences");
     break:
if (strpos($keyword, "genetics") !== false) {
     array_push($subjects, "Biological Sciences");
     break:
if (strpos($keyword, "ecology") !== false) {
     array_push($subjects, "Biological Sciences");
     break;
```

- Fields stripped of special characters, converted to lower case
- Split into an array
- Search for Keywords work in progress
- Broad keywords can be detrimental
 - "Business"
 - "Art"



SUBJECT TAGGING

- Industries. Land Use. Labor (Group 1) LC Group 2-4 empty
- BUSINESS & ECONOMICS / Industrial Management.; BUSINESS & ECONOMICS / Management Science.; BUSINESS & ECONOMICS / Organizational Behavior.;
- How Did I Not See This Coming?: A
 New Manager's Guide to Avoiding
 Total Disaster /



ISBN AND COVER IMAGES

MMS Id	Item Id	Title	Author	Publication Date	ISBN (Normalized)
99186678302331	23173476500002331	The bitter season /	Hoag, Tami, author.	[2016]	0525954554; 9780525954552; 9780698190832; 0698190831
99245779402331	23175056320002331	Teaching students with special needs in general education classrooms /		[2017]	0134017560; 9780134017563; 0133947645; 9780133947649
99275487702331	23173626400002331	Lillian Boxfish takes a walk /	Rooney, Kathleen, 1980- author.	2017.	1250113326; 9781250113320; 9781250113337; 1250113334

- Goal: Finding a cover image for 100% of the titles
- Problems:
 - Multiple ISBN's
 - Not every ISBN returns an image

STEP 1: PRIMO COVER IMAGE

ISBN (Normalized)

0525954554; 9780525954552; 9780698190832; 0698190831

API Check Image Size

https://proxyna.hosted.exlibrisgroup.com/exl_ rewrite/syndetics.com/index.asp x?isbn=0525954554/MC.JPG&clie nt=primo



Does image exist?

Yes = Done. Record URL
No = Repeat with next ISBN

- Starting with 1st image, use cURL to check URL for image size.
- Primo returns "86" for image with no result. This is a 1x1 white square.
- Keep checking until image found or list exhausted

STEP 2: GOOGLE BOOKS

ISBN (Normalized)

0525954554; 9780525954552; 9780698190832; 0698190831 API Check Google Books

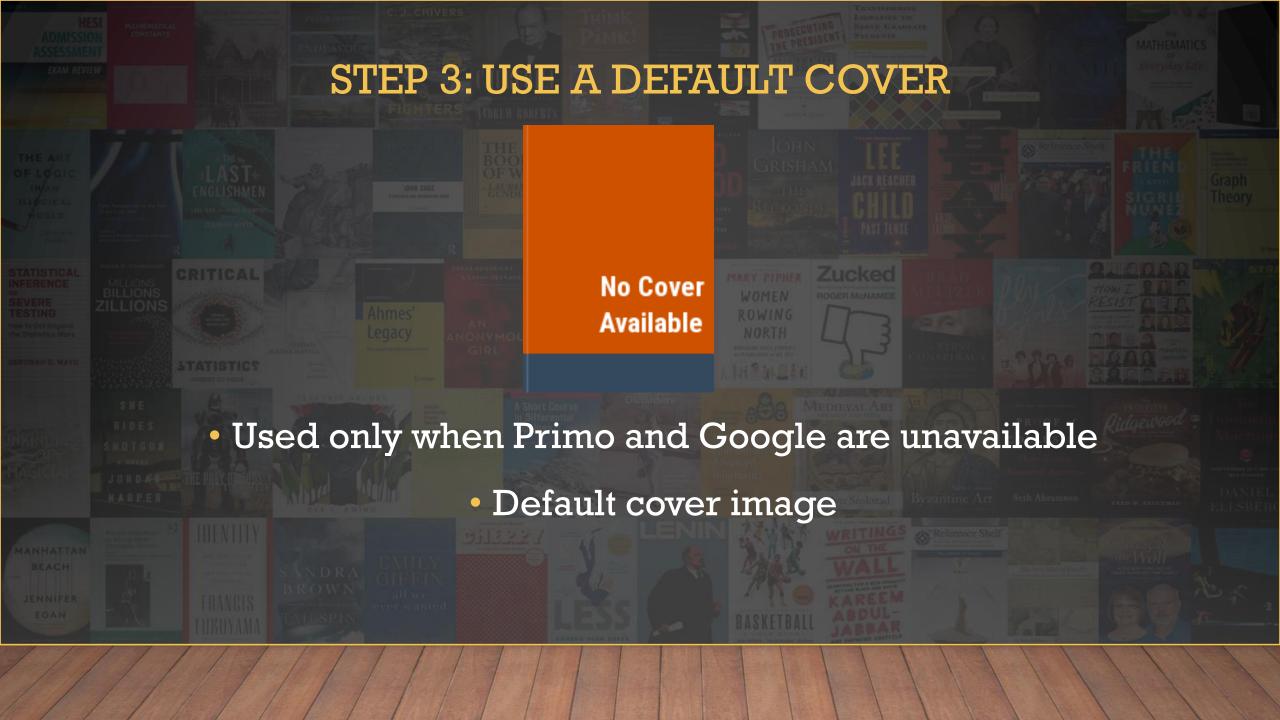
https://www.googleapis.com/books/vl/volumes?q=isbn:05259545
54&country=US&key=[GOOGLE
API KEY]



Does imageLinks array exist?

Yes = Done. Record URL
No = Repeat with next ISBN

- Used only when Primo covers are exhausted.
- Google imposes API Query limits (1,000 day)



COVER IMAGES - USEFUL TIP

- Finding image covers is a time consuming process. Be respectful of API's.
- Instead of repeating the process over again for a book, we record the MMS_ID, Cover URL, and Time into a separate file.
- We check this file for an existing entry before initiating the cover image API's.

LINKING

- All links (physical and electronic) go to our Get It @ ETSU Services Page
- Why? Consistent & Up to Date
- https://etsu-edu-primo.hosted.exlibrisgroup.com/primoexplore/openurl?sid=books_widget&isbn=1683730976
- "sid" parameter = used for analytical purposes

Request Date	Title	Author	ISBN	Source
3/7/2019	Principles and practice of pediatric infectious diseases /		9780323401814	books_widget
3/11/2019	Meyler's side effects of drugs : the international encyclopedia of adverse drug reactions and interactions /		9780444635938	books_widget
3/12/2019	3D integration in VLSI circuits : implementation technologies and applications /		9781138710399(Hardback)	books_widget
3/13/2019	Applied hierarchical modeling in ecology : analysis of distribution, abundance and species richness in R and BUGS /	Kéry, Marc, author.	0128013788;9780128013786	books_widget
	Images of the art museum : connecting gaze and discourse in the history of museology /		3110341360	books_widget
	Mastering the Nikon D850 /	Young, Darrell, 1958- author.	1681983729	books_widget
	Numerical simulation in hydraulic fracturing: multiphysics theory and applications /	Shen, Xinpu, 1963, author.	9781138029620(Hardback)	books_widget
3/14/2019	Basic & Clinical Pharmacology, 14e		1259641155	books_widget
		n and discount	0700700070004	1 1

SAMPLE ARRAY

```
array (
title' => 'The Bitter Season',
'author' => 'Hoag, Tami, author.',
'portfolio_id' => '23173476500002331',
'mms id' => '99186678302331',
'isbn' =>array (0 => '0525954554', 1 => '9780525954552', 2 => '9780698190832', 3 => '0698190831'),
'pub_date' => '2016',
'upload_date' => '2018-06-19',
'mod_date' => '2019-02-27',
'location' => 'ETSU Sherrod Books (4th Floor) (PS3558.O333 B58 2016)',
'location_code' => 'esbb4',
'subjects' => array (0 => 'Foreign Language and Literature',),
'catalog_url' =>'https://libs.etsu.edu/primo/resolver.php?sid=books_widget&isbn=0525954554', 'cover_url'
=> 'https://proxy-
na.hosted.exlibrisgroup.com/exl_rewrite/syndetics.com/index.aspx?isbn=0525954554/MC.JPG&client=primo',
'type' => 'print', /)
```

MULTI-DIMENSIONAL ARRAY

 Once all records are processed, the multidimensional array gets converted to JSON and saved in an export folder.

Alma Analytics

- Electronic Report
- Physical Report
- "New Book" Filter Criteria

API

Data Transformation and Storage

- Display Fields
- Primary ISBN
- Linking
- Cover Images

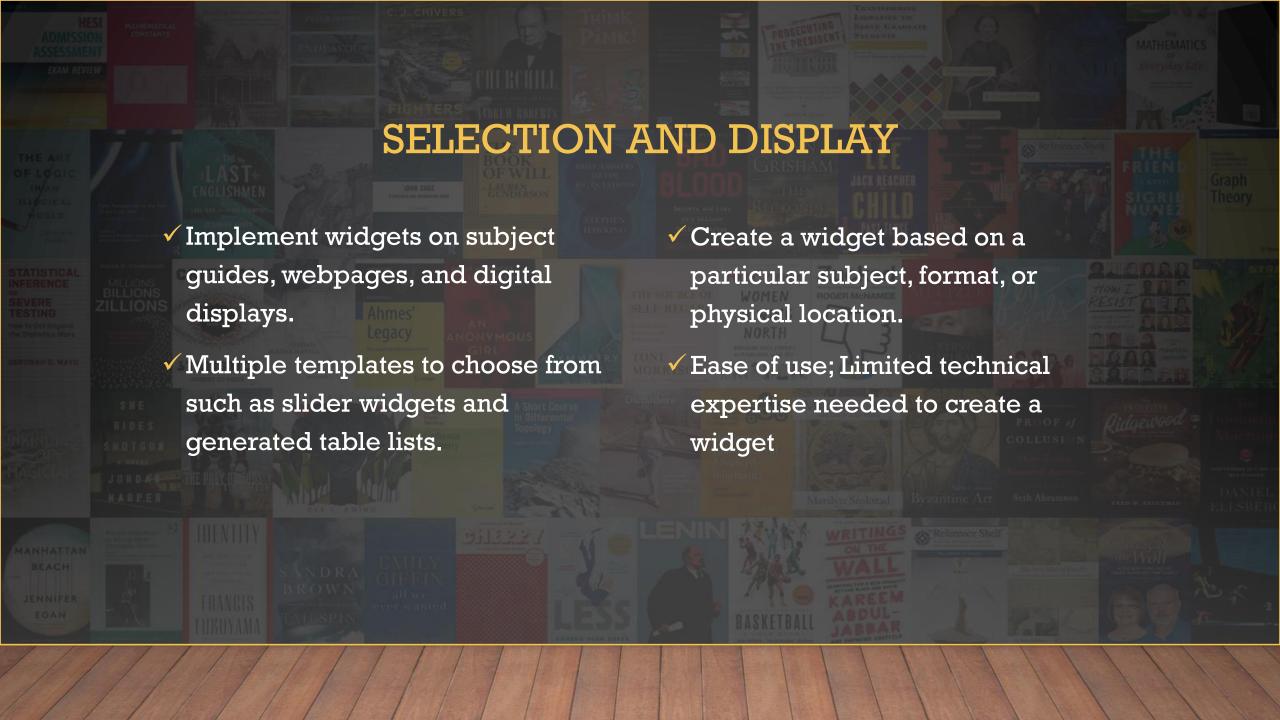
Array File

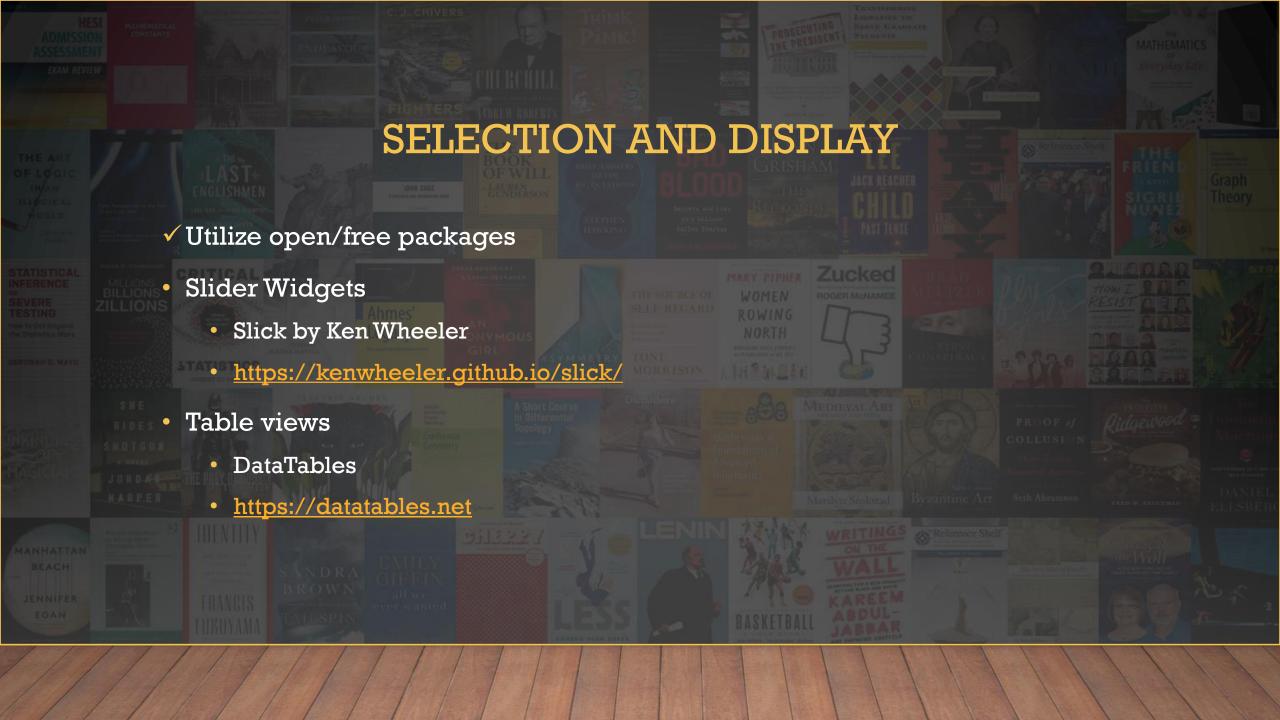
Selection and Display

- Selection Menu
- Results Filtering
- Display Templates
- Slider Widgets
- Digital Displays
- DataTables List

We are here







SELECTION MENU

https://libs.etsu.edu/books-display/

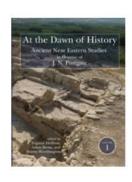
Which filter would you like to apply? author pub date upload date mod date location code subjects type Choose a value for your filter... Philosophy History Foreign Language and Literature Medicine Business Economics and Finance Sociology Public Health Engineering Anatomy and Physiology Cardiopulmonary Science Dental Hygiene Anthropology Chemistry Criminal Justice and Criminology Biological Sciences Political Science English Social Work Psychology Art Education Legal Resources Communication Studies Radiography Physics Theater Management and Leadership Healthcare Management Mathematics Speech-Language Pathology Sport Leadership and Management International Studies Nutrition and Dietetics Career Resources Music Geosciences Pharmacy Accountancy Environmental Health Digital Media Counseling Sport Physiology and Performance Nursing Computing Marketing Audiology Paleontology Gender and Diversity Physical Therapy Educational Technology Womens Studies Choose a template... bookspage • brightsign osubjectguides **Embed Code** <iframe frameborder="0" scrolling="no" src="https://libs.etsu.edu/books-display</p>



• https://libraries.etsu.edu/research/guides/history/books

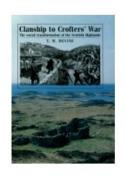
New Books in History

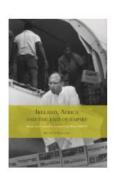












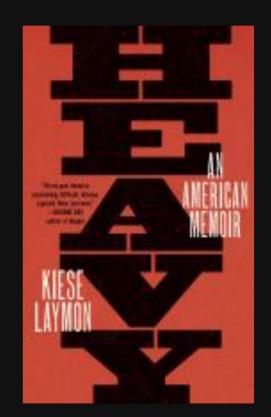




WIDGET EXAMPLES DIGITAL DISPLAY

https://libs.etsu.edu/books-display/display.php?filter=type&query=print&template=brightsign

New Books at Sherrod



Heavy: An American Memoir

Laymon, Kiese.

ETSU Sherrod 2nd Fl. Barbara Jaffe Silvers Collection (PS3612.A959 Z46 2018)

WIDGET EXAMPLES TABLE DISPLAY

• https://libraries.etsu.edu/research/books/new

Searc Subject			Export Titles to Excel
Cover	Title	Publication Date	Collection
AUGUST TO SERVICE STATE OF SERVICE STATE STATE OF SERVICE STATE S	A Crisis In Swiss Pluralism: The Romansh And Their Relations With The German- And Italian- Swiss In The Perspective Of A Millennium Author: Billigmeier, Robert Henry.	2016	Online Resource - EBSCOhost Academic eBook Collection (North America)
FAMILY	A Dictionary Of Family History: The Genealogists' Abc Author: Scott, Jonathan.	2017	Online Resource - EBSCOhost Academic eBook Collection (North America)
SPIDERS	A Field Guide To Spiders Of Australia Author: Whyte, Robert, 1955- author.	2017	Online Resource - EBSCOhost Academic eBook Collection (North America)
A.	A Focus On Sustainable Supply Chains And Green Logistics. Author: Emerald Group Publishing Limited.	2016	Online Resource - EBSCOhost Academic eBook Collection (North America)
MF miding from	A Fresh Look At Potential Output In Central, Eastern, And Southeastern European Countries Author: Podpiera, Jiří, 1976-	2017	Online Resource - EBSCOhost Academic eBook Collection (North America)
1	A Grand Adventure: The Lives Of Helge And Anne Stine Ingstad And Their Discovery Of A Viking Settlement In North America Author: Ingstad, Benedicte, author.	2017	Online Resource - EBSCOhost Academic eBook Collection (North America)

