Drag, Drop, Done: Implementing Library Help LTI in Canvas

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Welcome
Opening Questions

- What Learning Management System (LMS) is on your campus?
  - Blackboard?
  - Moodle?
  - Canvas?
  - Others?
- How many have previously worked with the LMS admin in installing a Learning Tool Integration (LTI)?
- Anyone using the Springshare LTI?
  - Either Manual Mode or Automagic?
- How many would like to get started with at least one LTI?

University of St. Thomas

- Campuses in St. Paul and Minneapolis, Minnesota (and Rome, Italy)
- Enrollment:
  - Undergraduate: 6,212
  - Graduate: 3,640
- Canvas Learning Management System
  - Fully moved from Blackboard Fall 2018
  - Every course automatically has a site set up
  - Not every course uses it—but it is there and ready!
- STELAR: St. Thomas E-Learning and Research
  - Provides instructional designers to work with faculty in creating online resources for their courses
  - STELAR for the St. Paul campus is housed in the O’Shaughnessy-Frey Library
University of St. Thomas Libraries

- Four libraries
  - O’Shaughnessy-Frey (Main library, located on St. Paul campus, mainly undergrad)
  - Charles J. Keffer (Minneapolis campus, graduate Psychology, Business, Dougherty Family College, and School of Education)
  - Archbishop Ireland Library (St. Paul campus, theological library)
  - Schoenecker Law Library (Minneapolis campus, law library)
- ~60 Staff
  - 16 reference librarians
  - 1 developer (me)
- Springshare LibGuides for reference pages
- Library Management System is Ex Libris Alma/Primo (+ Leganto)

Me

- Currently develop in PHP (and JavaScript, jQuery, HTML, and CSS)
- I am an outsider to the library
  - Web developer by training and practice
    - AAS in Computer Programming from SCC in Milford, Nebraska (DB2 + COBOL! Yay!)
    - BA from St. Thomas: Studied English, computer science (and theology and philosophy)
    - MS in Software Engineering at St. Thomas: security and object oriented design
  - 22 years at St. Thomas
    - Many departments as a student (tech desk and I became the resident ColdFusion expert)
    - 13 years in Career Development Center (Java Application Server)
    - This is my 4th year in the library
- I’m not in my position to solve problems, I’m in it to make things usable
  - …for people who aren’t me
  - I am not my user, though at one time I stood where they stood
I’m an Expert Beginner

I’m amazed at what people can do. The big projects my peers are involved in. I go to these conferences and I don’t feel like an expert. There’s a lot of smart people here. Yet, I’m still a beginner because I’m always beginning something new. I’m here today so that we can all begin the discussion of library LTI development. You don’t need to be an expert to start or finish an LTI project. You just need to begin. You’ll learn and find things, make connections, as you go.

Agenda

• The Start: What is an LTI?
• Looking at Options
• The Dream Becomes Reality
• How Does it Work?
• What’s the Buzz?
• What’s Next?
• GitHub
The Start: What is an LTI?

We Had an Opportunity

• Our campus was switching to Canvas starting in 2017
• All Canvas by Fall 2018
• We wanted in from the start
• We had no idea where to start
• But we heard of LTIs…
• …though we had no idea what they were
Learning Tool Integration (LTI)

• They are like little plug-ins you can install either...
  • For a single course (instructors can add)
  • Across the whole LMS (LMS administrator adds, but instructors can activate)
• In Canvas they are called Apps
• We requested a sandbox course from our admin and started playing
• Added a few
  • Docuseek2
  • Films on Demand
  • Library Research Guides (LibGuides)
  • Naxos
• Took notes on what each did and what value they could add

Some were added to menus and allowed easy embedding of content
Library Research Guides

Use the dropdowns below to select the content you wish to embed in your page. After selecting an option from the first dropdown, additional selections options will appear.

- LibGuides Site
  - Research & Course Guides - libguides.stthomas.edu

- Content Type
  - Content Box

- Guide
  - SOCI 312 - Crime and Delinquency by Merrie Davidson

- Guide Page
  - Statistical Resources

- Box
  - Crime Statistical Sources in Electronic/Web format

- Display box without header and border:

[Embed Content]

---

**Crime**

Crime Statistical Sources in Electronic/Web format

These resources are available either electronically by UST Libraries, or as a free Web site.

- Bureau of Justice Statistics
  - Crime in the United States
    - Also known as the Uniform Crime Reports. This is an annual publication.
  - Crime in the United States: UCR 2007-2008 (PDF and PDF-Text versions)

These links provide access through the UST Libraries to electronic editions of this resource.

- CurrentNTA
  - Minnesota hello're Crime Reports
    - This is also available at either site on the Right side of this page.

- Minnesota Criminal Justice Statistics Center
  - National Archive of Criminal Justice Data
  - The most complete access to the many different resources which include data on Crime and Justice. One resource is the National Crime Victimization Survey.

- Sourcebook of Criminal Justice Statistics

- Statistical Abstract of the United States
  - This resource is the first place to go when trying to locate statistical information.

It provides tables with statistics in many different areas, and includes links to original source data to help locate-related data. Earlier editions are also available.

Covers 10-15 years old.

**Crime Statistical Source in Print**

This resource is available in the UST Libraries collections.
Some added themselves to the course navigation

• This was probably the most annoying
• Even the apps that helped us embed content from the menu put themselves on the course navigation
• We weren’t sure what the benefit was
• Feared instructors would hate how long the list was
• What benefit did it provide the student?

And then some just displayed a full website… (within a website, within a website) :/
Evaluated what would add value to a course

• We made a case based on value and presented those to the Canvas admins
• Didn’t want to add an “app” just because we could or because it was available
• We opted for the menu items that made embedding content easy

Success!

• We recommended these 3 LTIs to the admins:
  • Docuseek2
  • Films on Demand
  • Library Research Guides (LibGuides Manual Mode)
• And they said yes!
• With one caveat:
  • Don’t have them show up in the course navigation
  • (that’s sacred space)
Research

• Anyone know XML?
• Installs are typically done with an XML file
  • Either the vendor provides a link to a config xml
  • Or they give you xml text to paste in

I dug into the XML and found this piece of code...

```xml
<lticm:options name="course_navigation">
  <lticm:property name="enabled">true</lticm:property>
  <lticm:property name="url">https://somedomain.com/lti</lticm:property>
  <lticm:property name="text">Books</lticm:property>
  <lticm:property name="visibility">members</lticm:property>
  <lticm:property name="default">enabled</lticm:property>
</lticm:options>
```

• So I removed it! No more nav item!
We got our foot into Canvas!

- We made a LibGuide for helping instructors incorporate library resources into Canvas: [https://libguides.stthomas.edu/canvas](https://libguides.stthomas.edu/canvas)
  - Covered embedding audio and video from common sources
  - Inserting Docuseek and Films on Demand content
  - Creating permalinks through our EZ-Proxy
  - Adding Resource Lists (like course e-reserves)
  - Adding content from LibGuides

There was much rejoicing

- But the next day we woke up and felt we could do more
Vision: “Some sort of landing page”

- The Canvas admins in STELAR liked the tools that assisted faculty in building their Canvas course
- But we both had a shared vision of “presenting” a library package
- But what would that look like?
- STELAR (experience working with faculty), and our own reference librarians (experience working with faculty and students), gave input
  - LibGuides
  - Course Reserves
  - Librarian contact info
- And have it appear before their very eyes
Springshare

- LTI Builder - Automagic
- Good, but it didn’t do everything we wanted
- Required librarians to manage metadata fields for each guide
- Metadata options are buried, whereas “tags” are right there on the edit page—and our librarians were already using tags
- Plus metadata is not exportable through APIs, but tags are so if we wanted to integrate with other systems, we’d be doing double duty

Course Reserves

- At the time we didn’t have Leganto
- Our Library Management System (Alma) had a Course Reserve management module
- It wasn’t easy to point students to
Nothing fit our “Dream” library course integration

Could we “roll our own”?

- Creating a backend was just out of the question
  - We’d have to create admin pages and privileges
  - Manage data storage and security
  - Create forms and processes to add, update, and delete
- Plus we already had data
  - LibGuides
  - Alma Reading Lists
But seriously, could we “roll our own”?

• LibGuides had APIs to pull data from
• Alma had an API to pull course reserve data from
• Plus we now knew how to hack the install XML

Not for the weary

• When we started we didn’t have a firm grasp on APIs
• We still didn’t know too much about LTIs. What made them tick?
• What exactly did we want?
• And, more importantly, how does this whole thing work?
• We’re going to get a little technical over the next few minutes so if that’s not your style just sit back and take a few sips of your caffeinated beverage and think about puppies
  • If that will keep you smiling
Create your own LTI!

• What you’ll need:
  • A course in your Learning Management System you can play around with
  • 2 minutes of your time
• What you’ll get:
  • An LTI that displays “Hello, Library” in your LMS
  • Experience installing, and tweaking an LTI
  • Joy

Install an app using a remote config.xml file

• Here’s the steps for Canvas:
  1. Go to your course settings
  2. Go to Apps then View App Configuration then Add App
  3. Choose By URL
  4. Give it a name and in the Config URL field enter: https://libraries.aws.stthomas.edu/lti-example/canvas_lti.xml
  5. Submit and you may need to refresh the page
  6. Click on ”Hello Library” in the course navigation
You installed an LTI!

• Note that it knows who you are AND what course you came from!
Now delete it

- You can install it again later
- That example was too easy, you didn’t have to mess with any XML
- Go back into the Settings, then Apps, and View App Configurations
- Click on the gear icon and choose delete
- Yes, you’re sure

Install using XML

- In the previous exercise you had the LMS fetch the XML config from the remote server
- However, you can fetch the config yourself and modify it before installing
- Once an app is installed, you can’t modify the config, you need to delete and reinstall (so this is good practice!)
- Get the XML either by:
  - Downloading from https://libraries.aws.stthomas.edu/lti-example/canvas_lti.xml
  - Downloading the XML file from https://github.com/USTLibraries/LTI-Example-XML
- If you are able to host your own PHP code, upload the launch.php file to your own server and point the `<blti:launch_url>` and `<lticm:property name="url">` tags to it
Update the green tags (or don’t and see what happens)

```xml
<blti:title>Hello Library</blti:title>
<blti:description>My Library custom LTI</blti:description>
<blti:extensions platform="canvas.instructure.com">
    <lticm:property name="privacy_level">public</lticm:property>
    <lticm:options name="course_navigation">
        <lticm:property name="enabled">true</lticm:property>
        <lticm:property name="url">https://libraries.aws.stthomas.edu/lti-example/launch.php</lticm:property>
        <lticm:property name="text">Hello Library</lticm:property>
        <lticm:property name="visibility">members</lticm:property>
        <lticm:property name="default">enabled</lticm:property>
    </lticm:options>
</blti:extensions>
```

Add the app to your LTI

- Here’s the steps for Canvas
  1. Go to your course settings
  2. Go to Apps then View App Configuration then Add App
  3. Choose Paste XML
  4. Give it a name (this only identifies it in your app list)
  5. Paste in the XML
  6. If you are hosting your own launch.php file, change the url between `<blti:launch_url>` and `<lticm:property name="url">` to point to the location of your launch file
  7. Save and then you may need to refresh to get it to show up in the course navigation
• There are still a few things in the XML I'm not clear on, like, is there a difference between `<blti:launch_url>` and `<lticm:property name="url">`?

• Are they both supposed to point to the launch page?

• If you inspect elements and go to the network tab it is called twice
If you poke around in Inspect Element:

- You see it is displayed within an IFRAME, with a FORM POST above it

```html
<iframe id="tool-content" class="tool_launch" src="about:blank" name="tool_content" allowfullscreen="allowfullscreen" webkitallowfullscreen="true" mozallowfullscreen="true" tabindex="0" title="Tool Content" style="height:100%;width:100%;" allow="geolocation, microphone; camera; midi; encrypted-media">□</iframe>
```

And… if you look at the request…

- Using the network tab in your browser’s inspect element option is a HUGE tool in determining how remote assets are being requested and returned
This is what the LMS page sent:
A POST request for launch.php with these POST parameters
Look, ma! Data!

- Look at the cool data the LMS passes to your new “app”!
- You are able to make it spit out more data by adding custom variables to your XML file!

Plus!

- If you have a database of users you can use the USER ID and display info specific to that user!

**NO!**

- Not without implementing OAuth!
OAuth

- OAuth is a cryptographic signing function used to verify data sent in the POST request was actually sent from the LMS
- Prevents someone from resubmitting a POST request originally for user_id=12345 by changing it to user_id=12346
- Think of some crappy coded website with the following URL:
  - https://example.com/account/12345
  - The “hacker” could switch accounts by going to https://example.com/account/12346, then 12347, then 12348, etc.
- Implementing OAuth is a story for another day
  - But is necessary as a “next step” if your LTI requires data supplied by the LMS to be authentic

Some notes about hosting a launch file and your LTI

- You will need your own server to host the launch.php file included on GitHub
- Make sure it is hosted with https (since it will be displayed within an IFRAME in an https page)
- Also make sure you can make POST requests to it (otherwise you’ll get a 405 error)
- Make sure nothing prevents the page from being displayed in an IFRAME (CORS or other restrictions)
One More Thing: Beware of Nested Sites

- Before you go ahead and just display a standard website within the LTI frame with its own side and/or top nav, banners, multi columns, etc, think about if you really want to display a website inside of a website inside of a website.
- Is that really the user experience you are going for?

Learn more about LTI development

- Fun with building your own XML
  - https://www.edu-apps.org/build_xml.html
- Launch URL (The whys of frame-able, POST-able, and https-able)
  - https://canvas.instructure.com/courses/913512/pages/launch-url
- Writing LTI Stuff
  - https://www.edu-apps.org/code.html
- Canvas Variable Substitutions
As you can imagine, there was a learning curve

- We learned about
  - Springshare and Alma APIs
  - OAuth
  - Creating a web application that could be called by an LMS
  - Variable substitutions
  - Config URL, Launch URL, secret keys, custom parameters…

- Wrote a lot of code
  - Uses PHP
  - JavaScript, CSS
  - OAuth
  - Some XML (for the LTI config in the LMS)
It was accepted into Canvas site-wide

- Our STELAR folk loved it
- We were able install the app site-wide which meant we didn’t need to teach faculty how to install an app
- Though it is available in every course, it is not ENABLED by default
- But hey, it was a BIG win!
- Oh, and it won a spot in the sacred course navigation!

Drag, Drop, Done
Link to our website

- Detects if it is a LAW class and if so it will display a link to the law library

Research and Course Guides

- LIBX201 - Library Sandbox Resources

CLICsearch

Want to search across library content? 
Search

Related Databases

- Computer & Information Sciences databases

Resource List

Life on the Prairie

1. Nebraska life
2. Nebraska (POEMS)(Poem) / Abramson, Seth (American poet)

Artists from Poetry

Geography

1. Military map of Nebraska and Dakota / Warren, G. K. (Governor Kemble), 1830 - 1882
Guide (or guides)

- One or more guides will show
- We use the tags within LibGuides to "tag" a guide to a particular course.
- LIBX201
- If no guide it goes up a hierarchy (we'll get to that later)

Librarian Profile

- Uses the owner of the guide (or the subject expert as defined in LibGuides – we'll get to that later)
- Can display multiple profiles
Catalog Search

- Branded as CLiCsearch
- We use Primo by Ex Libris

Related Databases

- Subject(s) of the listed guides are used to display links to the databases
- Either just to the subject page in A-Z
- Or as a full list

Related Databases

- Computer & Information Sciences databases

Resource List

Life on the Prairie

1. Nebraska Life
2. Nebraska (POEMS)/Roon / Abramson, Seth (American poll)

Geography

1. Military map of Nebraska and Dakota / Warren, G. K. (Gouverneur Kambie), 1830 -- 1882
2. Political Map US States Nebraska / Mapco.com
3. Cable Trails of the Western U.S. -- North America, United States, Texas, New Mexico, Oklahoma, Kansas, Colorado.
Resource List

- Course Reserve/Reading List module in Alma
- We have Leganto which uses the same API as Course Reserves (yay! No code re-write!)

Related Databases

- Computer & Information Sciences databases

Chat

- We use LibChat
- Wrapped in our own custom JavaScript
- github.com/USTLibraries/libchat-custom
How Does it Work?

How much time do you have?

Well, it starts out by tagging a LibGuide
Tagging a Guide

- Suppose we have Geology 201
- We tag a guide with “GEOL201”
- When a professor drops the Library Help into their Geology 201 course any guide with that tag will show up

What if there isn’t a guide?

- Then it “rolls up” by showing any guide tagged with “GEOL” just in case there are general guides for the department
- Then the librarian profile displayed is the owner of that guide
What if there *STILL* isn’t a guide?

• Then it rolls up again, this time matching the department (GEOL) to a subject (Geology) and displays links to the Subject Page
• Then the profile(s) of the librarian(s) designated as “Subject Experts” for that subject are listed

What if—

• If there is no subject guide, either it is a new department or some non-class entity, it defaults to a link to the main page of the LibGuides
Okay, what if MATH 111 has 15 sections, taught by 8 instructors, each on their own train headed west at various speeds, different time tables, different stops, with no coordination and require (want) their own guide for their courses?

Yeah, it can handle that.
Tag it like so:
MATH111-LAMBERT
MATH111-THOMAS
MATH111-SMITH
We have a lot of unique scenarios we took into account

What if—
What if there are two Smiths in the MATH department each teaching their own sections of the same course?

It could happen, and no we wouldn’t be able to accommodate that but…
The likelihood of two or more sharing a last name in one department, each teaching their own section of the same course, wanting their own guide is probably a hundred to one.
Even if The Professors Smiths gave us calculations, it is an acceptable risk.
Plus, just for the Smiths, we could tag:
Guide for Smith 1: “MATH111-01” “MATH111-02” “MATH111-03”
Guide for Smith 2: “MATH111-04” “MATH111-05” “MATH111-06”
A single guide can be tagged with (and used by) multiple courses

What if Dr. Thomas wants a single guide for all of his math courses?

Easy!
MATH-THOMAS
Different campuses?

• We’re working on that
• Up until about a year ago the courses among our campuses and libraries followed a strict pattern. You wouldn’t have a course in Minneapolis that was also taught in St. Paul
• There had been no confusion as to what library a student would go to
• However, we now have a 2-year college on our Minneapolis campus which offers classes traditionally held in St. Paul, and utilizes our Minneapolis librarians
• There is a field in Canvas we can pull and we’ll implement it this summer

What’s the Buzz?
Early results

• Launched Spring 2018
• Faculty member: “Wow! I didn’t know I had a librarian assigned to me!”
• Student: “I could really use this for my courses!”
• School of Divinity and Dougherty Family College rolled it out to all their courses
• Faculty have found, dragged, and dropped it into their course all on their own
• Students in a campus-wide user experience group complained about difficulty in finding resources for their course. When we demonstrate Library Help in Canvas they get excited and want it active in their course
• IT wants to incorporate something similar on the intranet page tailored for each student

Stats

• Sept ’18 – March ’19
• Pretty Good!
• 3,399 total interactions
  • 1,939 views (+221 outside of Canvas)
  • 568 click throughs to LibGuides
  • 195 to a course reserve item
  • 182 to databases
  • 154 to our website (#6 A)

<table>
<thead>
<tr>
<th>Event Category</th>
<th>Total Events</th>
<th>Unique Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMS Course</td>
<td>1,939 (57.6%)</td>
<td>1,664 (50.5%)</td>
</tr>
<tr>
<td>Guides</td>
<td>568 (16.7%)</td>
<td>510 (15.3%)</td>
</tr>
<tr>
<td>LibGuides</td>
<td>221 (6.5%)</td>
<td>121 (3.6%)</td>
</tr>
<tr>
<td>Course Reserve</td>
<td>195 (5.7%)</td>
<td>98 (3.0%)</td>
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<tr>
<td>Databases</td>
<td>182 (5.3%)</td>
<td>166 (5.0%)</td>
</tr>
<tr>
<td>A</td>
<td>154 (4.5%)</td>
<td>130 (4.0%)</td>
</tr>
</tbody>
</table>
## It is on 200+ courses in Canvas

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC419 - Public</td>
<td>59 (3.29%)</td>
</tr>
<tr>
<td>201840GEOI115-00L - Student User</td>
<td>54 (3.07%)</td>
</tr>
<tr>
<td>201840EXSC449-002 - Student User</td>
<td>43 (2.56%)</td>
</tr>
<tr>
<td>201840ENGL121-W24 - Student User</td>
<td>37 (2.09%)</td>
</tr>
<tr>
<td>201840JPST250-JOL - Student User</td>
<td>36 (2.08%)</td>
</tr>
<tr>
<td>201840OPMT621-B01 - Student User</td>
<td>31 (1.79%)</td>
</tr>
<tr>
<td>201920GEOI115-JOL - Student User</td>
<td>31 (1.79%)</td>
</tr>
<tr>
<td>201920GEOI115-KOL - Student User</td>
<td>30 (1.65%)</td>
</tr>
<tr>
<td>201920HISTT115-JOL - Student User</td>
<td>29 (1.59%)</td>
</tr>
<tr>
<td>201920JPST250-JOL - Student User</td>
<td>28 (1.54%)</td>
</tr>
<tr>
<td>201920GEOI115-00L - Student User</td>
<td>27 (1.48%)</td>
</tr>
<tr>
<td>201920OPMT621-JOL - Student User</td>
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<tr>
<td>201920GEOI115-JOL - Student User</td>
<td>25 (1.45%)</td>
</tr>
<tr>
<td>201920GEOI115-KOL - Student User</td>
<td>24 (1.32%)</td>
</tr>
<tr>
<td>201840JPST250-W24 - Student User</td>
<td>24 (1.32%)</td>
</tr>
</tbody>
</table>

## Where students go

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUIDE GEOL 115 Stillinger</td>
<td>117 (2.21%)</td>
</tr>
<tr>
<td><a href="https://www.stthomas.edu/libraries">https://www.stthomas.edu/libraries</a></td>
<td>117 (2.21%)</td>
</tr>
<tr>
<td>GUIDE: SOCI 100 Trait Social Analysis Paper</td>
<td>49 (0.91%)</td>
</tr>
<tr>
<td>GUIDE: EXSC 449: Research Methods in Exercise Science</td>
<td>41 (0.81%)</td>
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<tr>
<td>GUIDE: Geology</td>
<td>31 (0.24%)</td>
</tr>
<tr>
<td>GUIDE: HIST 115 Kurjacec</td>
<td>28 (0.52%)</td>
</tr>
<tr>
<td>GUIDE: JPST150: Leadership for Social Justice</td>
<td>27 (0.82%)</td>
</tr>
<tr>
<td>GUIDE: JPST 150 Intro to Justice and Peace Buhler</td>
<td>26 (0.71%)</td>
</tr>
<tr>
<td>GUIDE: OPMT 621: Spreadsheet Modeling &amp; Data Visualization</td>
<td>25 (0.41%)</td>
</tr>
<tr>
<td>GUIDE: Art History 110</td>
<td>23 (0.40%)</td>
</tr>
<tr>
<td>GUIDE: PUBH 465: Public Health Research Methods</td>
<td>23 (0.40%)</td>
</tr>
<tr>
<td>GUIDE: Justice &amp; Peace Studies</td>
<td>17 (0.37%)</td>
</tr>
<tr>
<td>GUIDE: OPMT 320: Decision Analysis</td>
<td>16 (0.37%)</td>
</tr>
<tr>
<td>GUIDE: *Economics Research Guide</td>
<td>14 (0.26%)</td>
</tr>
<tr>
<td>GUIDE: International Business</td>
<td>13 (0.26%)</td>
</tr>
<tr>
<td>GUIDE: HIST 115 The World Since 1100 Kurjacec</td>
<td>13 (0.26%)</td>
</tr>
<tr>
<td>launch.php ???????</td>
<td>13 (1.36%)</td>
</tr>
<tr>
<td>SUBJDB: Health and Exercise Science</td>
<td>13 (1.36%)</td>
</tr>
<tr>
<td>SUBJDB: History</td>
<td>13 (1.36%)</td>
</tr>
<tr>
<td>SUBJDB: Music</td>
<td>13 (1.36%)</td>
</tr>
<tr>
<td>SUBJDB: Art History</td>
<td>12 (1.23%)</td>
</tr>
<tr>
<td>SUBJDB: Data &amp; Statistics</td>
<td>12 (1.23%)</td>
</tr>
<tr>
<td>SUBJDB: Theology &amp; Religion</td>
<td>12 (1.23%)</td>
</tr>
<tr>
<td>GUIDE: *Statistical Resources Guide</td>
<td>10 (1.09%)</td>
</tr>
<tr>
<td>SUBJDB: Biology</td>
<td>10 (1.09%)</td>
</tr>
<tr>
<td>SUBJDB: Music</td>
<td>10 (1.09%)</td>
</tr>
<tr>
<td>GUIDE: BIOL 480: Urban Ecosystem Ecology</td>
<td>9 (0.84%)</td>
</tr>
<tr>
<td>GUIDE: BIOL 356: Microbiology</td>
<td>7 (0.73%)</td>
</tr>
<tr>
<td>GUIDE: BIOL 467: Emerging Infectious Diseases</td>
<td>7 (0.73%)</td>
</tr>
<tr>
<td>GUIDE: COJU030: Communication in Popular Culture</td>
<td>7 (0.73%)</td>
</tr>
<tr>
<td>GUIDE: THED 424: Christianity and World Religions</td>
<td>7 (0.73%)</td>
</tr>
<tr>
<td>GUIDE: MGMT 305 - Management &amp; Organizational Behavior</td>
<td>6 (0.69%)</td>
</tr>
</tbody>
</table>
Wait, you said there were 221 uses outside Canvas

- Yes, there is a public component
- A Library Help page can be generated by a faculty member or librarian just by entering the whole, or a portion of a course ID
- They can pick and choose customizations
- The link can be used as a webpage inside of Canvas using an app called “Redirect Tool”
- It is great for librarians to check to see how a page would look if they don’t have access to a Canvas course

https://libraries.aws.stthomas.edu/lt/module/getlink

Step 1: Generate the preview link

- Course ID (required):
- [LIB201]
- Display default content recommended by library
- [ ]

Custom display options

- Research and Course Guides
  - Display full guides that are flagged with a matching Course ID. For example [STEM] or [ECON]:LIBGUIDE: Work with your subject librarian if you aren’t able to customize guides for your course.
- CLIsearch
  - Displays search results for the course. CLIsearch is a tool that searches the entire library catalog.
- Related Databases
  - Displays a list of related databases related to the course. Databases are selected based upon subject matter as tagged in the library’s I-2 Databases List.

- Database display type:
  - [ ] List to a list of related databases (compact)
  - [ ] List all related databases (expanded)
- [ ] Resource List
  - Shows a list of resources. List Displays. Resource List includes any favorite articles, books, and databases in the library’s collection as well as anonymous documents. Contact the library to set up Resource Lists for your class.

Step 2: Preview & Copy the link

Reopen

What’s Next?
Gather Feedback

- We spent a lot of time overcoming the technical hurdles
- Now that we have the pieces, we need to arrange them better
- Stakeholders
  - Faculty
  - Instructional Designers
  - Reference Librarians
  - Students!!!

Immediate Development

- We need a way to handle our classes for the 2-year college so that they get the local librarian’s profile
- We want to allow instructors the ability to customize their page
  - Add/remove content just as they can on the public page I mentioned
  - Maybe they don’t want to show their Resource List outside of Leganto or maybe they want to show all databases and not just a link to the databases for a particular subject
  - As demonstrated on the public page, customization is already built in (along with marking things they can’t turn off such as Librarian profile)
  - We just don’t have a database to store the settings (looking at DyamoDB?)
Library Help APIs

- The application has its own externally callable APIs that do all the heavy search and aggregation of LibGuides and Resource Lists
- Feed the API a course code and it will spit out the librarian, guides, databases and course materials
- IT is looking at incorporating these APIs in the campus intranet
  - Students can log into their personal page and under the courses they are enrolled in, see related Library Help content
- Caching and offloading API requests using Amazon Lambda?

Add contextual help for instructors

- Leverage the fact that the LMS passes the role of the current user to Library Help via the variable ext_roles
- We already use this to display a feedback link only to instructors
- We could use it to nudge/help instructors:
  - Recommend research and course guides
  - Suggest services/reasons they should contact their librarian
  - Get a Resource List going (if they don’t have one yet)
github.com/USTLibraries/library-help-lti

- Written in PHP (requires PHP 7+)
- Tested only in Canvas, and probably is Canvas specific but the config XML should be the only thing that would need to be modified for other systems
- Has an online Tool to walk you through set-up (adequate but still a work in progress)
- Designed to be customized
  - Look/feel, CSS, layout, HTML, settings, etc
  - All stored in a custom folder along with the config
  - Add your own discovery and chat widget
Out of the Box

• Does not require Alma or Leganto
  • Works with the built in Alma Course Reserves or Leganto
• Requires LibGuides CMS (access to the API)
• Has OAuth already implemented
• Batteries not included
• Not just an LTI but also an API you could use to display in other systems

Install it and play

• There are no databases, only a flat config file for the application
• Once set up you can install it in a Canvas course sandbox
• Or delete it and start again
• It itself is pretty much Drag, Drop, Done
Thank You!

Questions?

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github.com/USTlibraries
github.com/chadkluck