Extending the power of ILLiad through Addons, Web Page customizations, and other shiny things

Better, Faster, Stronger

ATLAS SYSTEMS
Library Excellence Through Efficiency

Matt Calsada

NO CODING

NO LAPTOPS REQUIRED

OVERVIEW !

This presentation is designed to open you up to some ideas that may help improve your operations, become more efficient, and maybe add some things to your to-do list (or someone elses). While we'll make use of technology this presentation does not require you to understand code.

Who is

Matt Calsada

…and why is he talking to us today?

Matt is the primary ILLiad developer and has been with Atlas Systems since 2004. He was the 13th employee; Atlas now has 27 staff members and has doubled in the 9 years that he has been there.

Prior to that he worked at University at Albany Libraries as a Senior Programmer/Analyst where his responsibilities included supporting ILLiad, leading all of the Libraries custom Web development, and managing the internal SQL databases.

He has been involved with LITA for more than 10 years, presenting at ALA Annual and holding numerous positions on LITA interest groups and committees.

If you've never seen Matt before it's probably because he is often found in a corner of the dark developer's room in Virginia Beach.

ATLAS

and the Devgineers

About 4 years ago the entire development team came together and started working in an agile environment. Four developers worked together across all of the Atlas products. While everyone worked well together it was difficult to change between products and get back into the right frame of mind each time development cycles changed. Since the beginning of 2013 the team has underwent another change where each product is assigned to a specific developer. The developers continue to work collaboratively but this change allows one person to maintain focus their focus on a product.

“lowest common denominator”

Staffing Levels

Small

Medium

Large

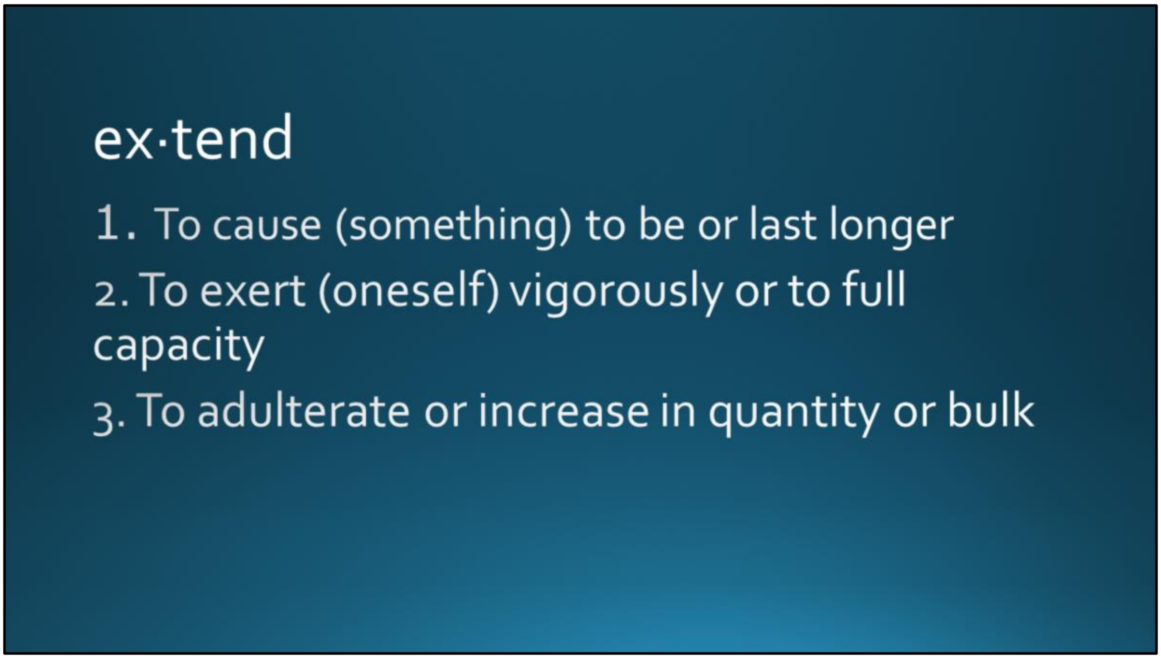
Libraries

Technical Abilities

While we talk about extending ILLiad some may ask why Atlas doesn’t provide all of the customizations and extensions as part of the baseline product.

Every ILLiad site is different. Atlas needs to provide at the lowest level of functionality for all customers. With a a large range of libraries from small to large, from those who need help customizing word documents to sites who are developing their own addons, the needs of the community vary greatly.

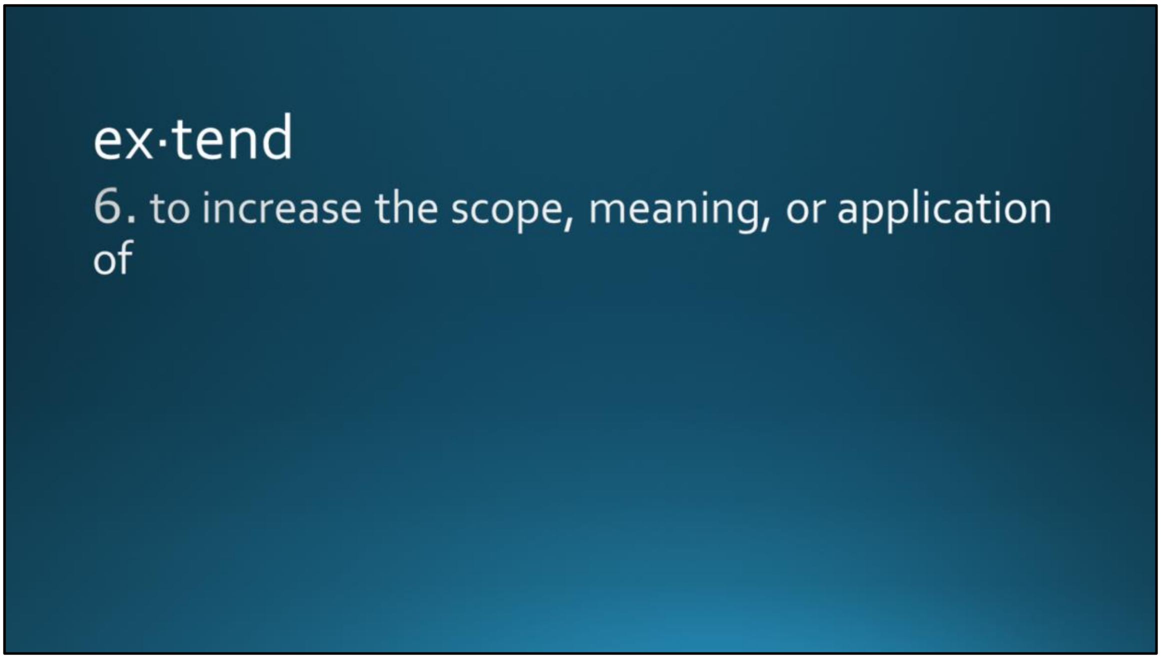
While every library may provide ILL services, they all do it a little differently. Atlas isn’t trying to enhance workflow, not enforce them.



ex·tend

1. To cause (something) to be or last longer
2. To exert (oneself) vigorously or to full capacity
3. To adulterate or increase in quantity or bulk

While every powerpoint needs the obligatory definition slide these are not the definitions we are looking for when talking about extending ILLiad.



ex·tend

6. to increase the scope, meaning, or application of

This *is* the definition that sums up this entire presentation.

Web Pages

Remember the dancing exclamation mark?

!

ILLiad webpages prior to 7.2 used “dancing exclamation marks” when there was a validation error. The main menu utilized buttons to get to every single page. Since then, the pages have changed dramatically but some ILLiad sites have not yet updated to the newer version of web pages. While two-thirds of the audience remembered the “dancing exclamation mark”, no one was using those pages.

Re-imagining your
Online Presence
to create a patron-driven
library experience

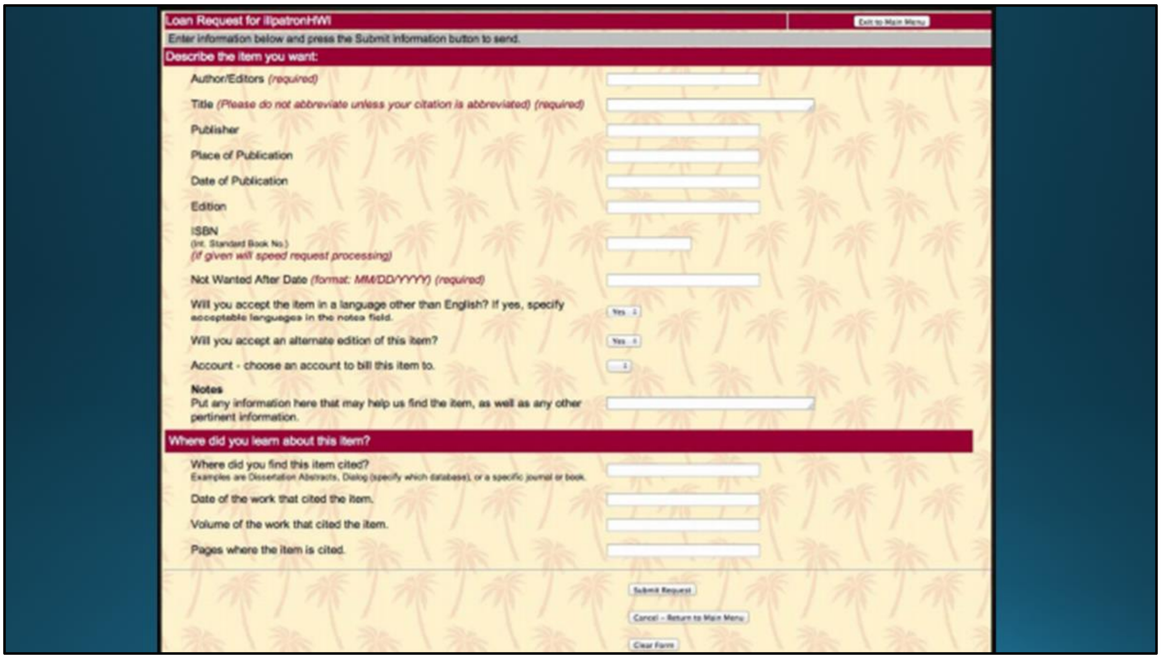
#ILLiad13

Caitlin Hafen
Scott Bertagnole

http://tinyurl.com/ILLiadBYUPresentation
http://tinyurl.com/BYUILLiadPlus

Back in March at the ILLiad conference, Caitlin and Scott from BYU presented Re-imagining your online Presence to create a patron driven library experience. They discussed a lot about why and how they modernized their webpages. BYU was still using the older version of web pages with the dancing exclamation marks. They also realized they were actively discouraging their users from using interlibrary loan with "stop signs" on their pages and directing users to find resources using alternative means.

Slides from the presentation are available at
http://tinyurl.com/ILLiadBYUPresentation.
The open sourced code that BYU implemented is available on GitHub at
http://tinyurl.com/BYUILLiadPlus.



Loan Request for illpatronHWI

Enter information below and press the Submit information button to send.

Describe the item you want:

Author/Editors *(required)*

Title *(Please do not abbreviate unless your citation is abbreviated) (required)*

Publisher

Place of Publication

Date of Publication

Edition

ISBN
(Int. Standard Book No.)
(if given will speed request processing)

Not Wanted After Date *(format: MM/DD/YYYY) (required)*

Will you accept the item in a language other than English? If yes, specify acceptable languages in the notes field. Yes

Will you accept an alternate edition of this item? Yes

Account - choose an account to bill this item to.

Notes
Put any information here that may help us find the item, as well as any other pertinent information.

Where did you learn about this item?

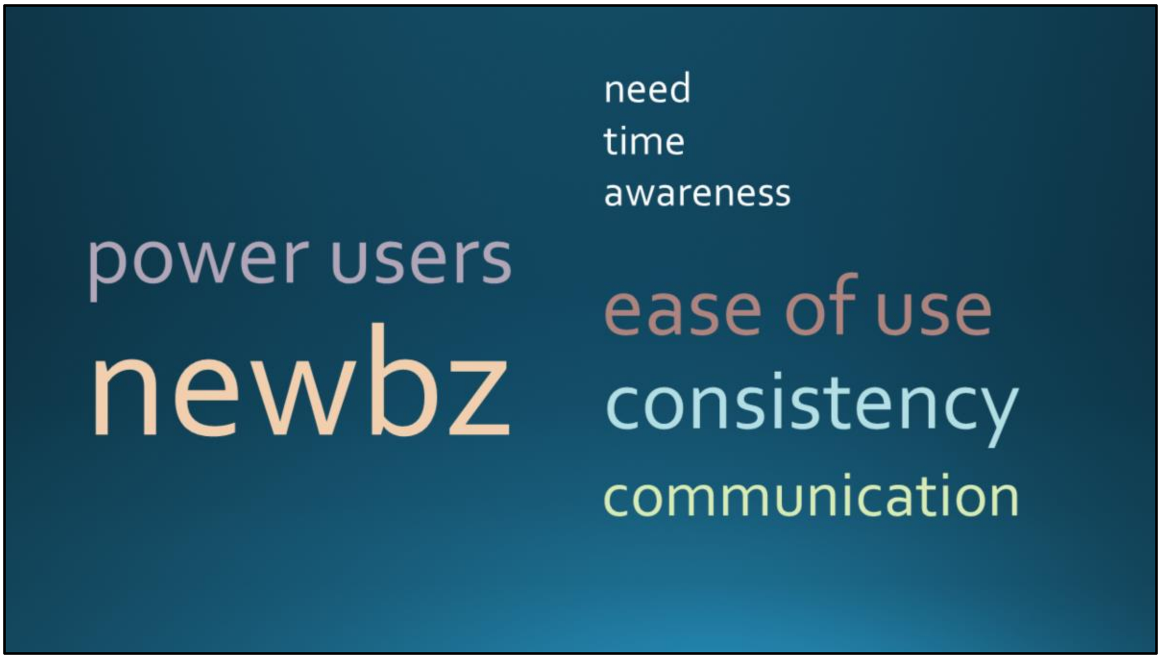
Where did you find this item cited?
Examples are Dissertation Abstracts, Dialog (specify which database), or a specific journal or book.

Date of the work that cited the item.

Volume of the work that cited the item.

Pages where the item is cited.

BYU is a shared server site. They realized that there was no consistency between their workflows and webpages between their different sites. Their Hawaii campus was using default pages but had customized colors and added a palm tree background. BYU staff considered their ILLiad pages ugly. After reviewing the request forms, they felt that information was being requested that wasn't used.



power users

newbz

need

time

awareness

ease of use

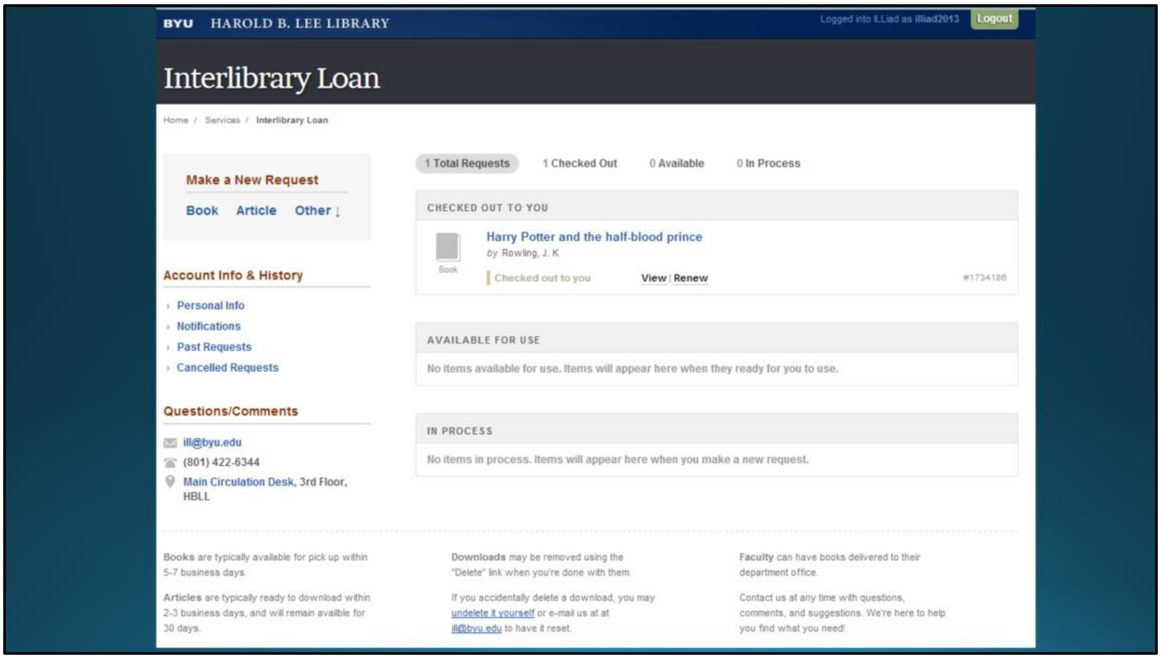
consistency

communication

After some surveys for usability, they identified 2 major groups of users. The power users who were familiar with research practices and the new users (mostly undergrads) struggling to understand what ILL was, how to use it effectively and frankly, how to do research in general.

They identified 3 main themes of areas that they felt they could tackle when rebranding their pages.

- Making the pages easier to use. The last slide showed a number of fields on the request form that patrons didn't understand and felt put off when they didn't have all of the information
- Consistency – While the Hawaii campus has palm trees, some of their other sites were looking a little more modern and some were using stock webpages
- Communication – Patrons weren't sure what was happening with requests or couldn't understand the lingo on the pages



BYU HAROLD B. LEE LIBRARY

Logged into ILLiad as illiad2013 Logout

Interlibrary Loan

Home / Services / Interlibrary Loan

Make a New Request

Book Article Other ↓

Account Info & History

- Personal Info
- Notifications
- Past Requests
- Cancelled Requests

Questions/Comments

✉ ill@byu.edu

☎ (801) 422-6344

Main Circulation Desk, 3rd Floor, HBLL

1 Total Requests 1 Checked Out 0 Available 0 In Process

CHECKED OUT TO YOU

Harry Potter and the half-blood prince

by Rowling, J. K

Book

Checked out to you View | Renew #1734186

AVAILABLE FOR USE

No items available for use. Items will appear here when they ready for you to use.

IN PROCESS

No items in process. Items will appear here when you make a new request.

Books are typically available for pick up within 5-7 business days.

Articles are typically ready to download within 2-3 business days, and will remain availble for 30 days.

Downloads may be removed using the "Delete" link when you're done with them.

If you accidentally delete a download, you may undelete it yourself or e-mail us at at ill@byu.edu to have it reset.

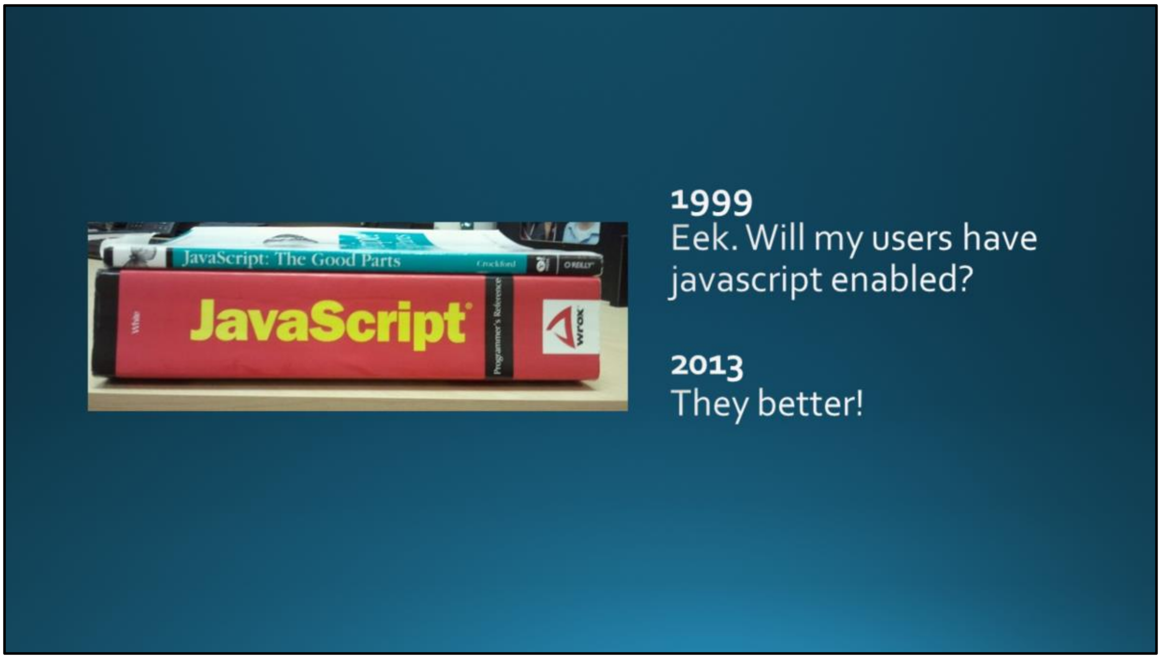
Faculty can have books delivered to their department office.

Contact us at any time with questions, comments, and suggestions. We're here to help you find what you need!

This is what their pages look like today. BYU didn't ask Atlas for help in customizing their pages; Anyone can implement this on their own ILLiad webpages. This is all done using stock tags available to them, customizing CSS and adding javascript.

In talking with Caitlin she stressed the changes at BYU were progressive. There were multiple redesign iterations. While they are happy with the current look & feel of their ILLiad webpages, they realize that there are additional improvements that they can continue to make.

Don't think that you have completed a project of redesigning your pages. Re-visit your pages in 6 months to a year to make sure they are still serving the needs of your patrons and ear easy to use.

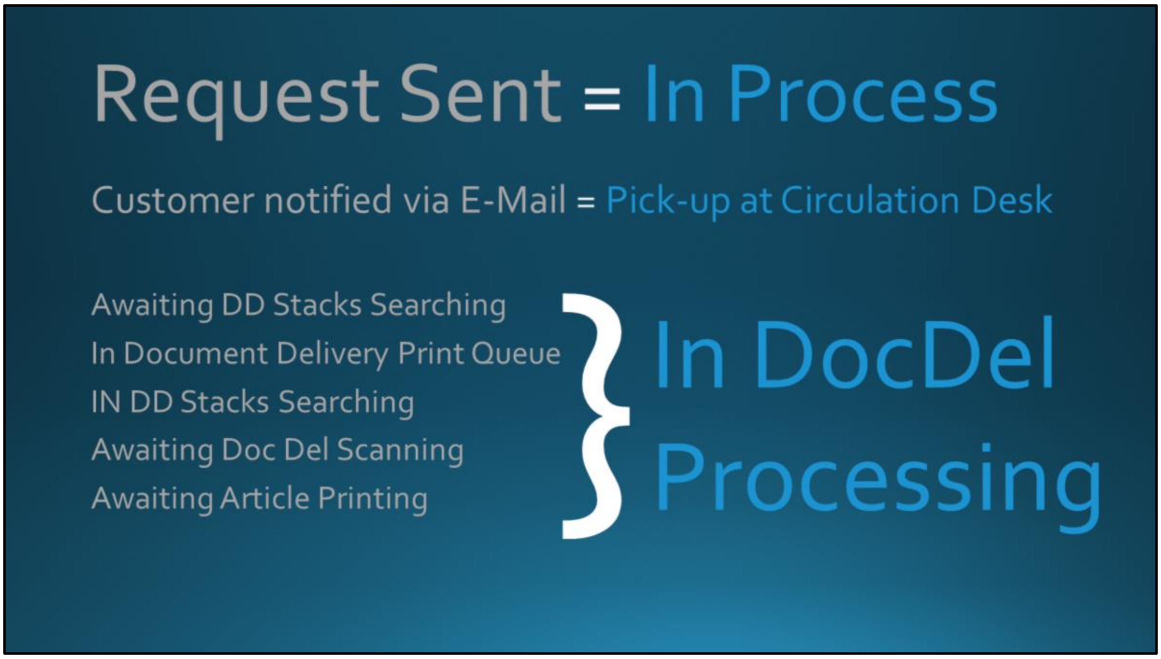

JavaScript: The Good Parts
Crockford
O'REILLY
White
JavaScript
Programmer's Reference
wrox

1999
Eek. Will my users have javascript enabled?

2013
They better!

BYU made heavy use of Javascript in their redesigned pages to modify the look & feel of their pages and also the vocabulary they used which comes from the ILLiad DLL.

Fifteen years ago Javascript could have been problematic if users purposefully disabled it. It wasn't as critical back then. Today it is used on almost every site you visit like Facebook, Amazon and Gmail. Don't be afraid to using Javascript to alter your web pages. There may be some concerns for accessibility so if you do make use of Javascript, take note to ensure the modifications degrade gracefully for all users.



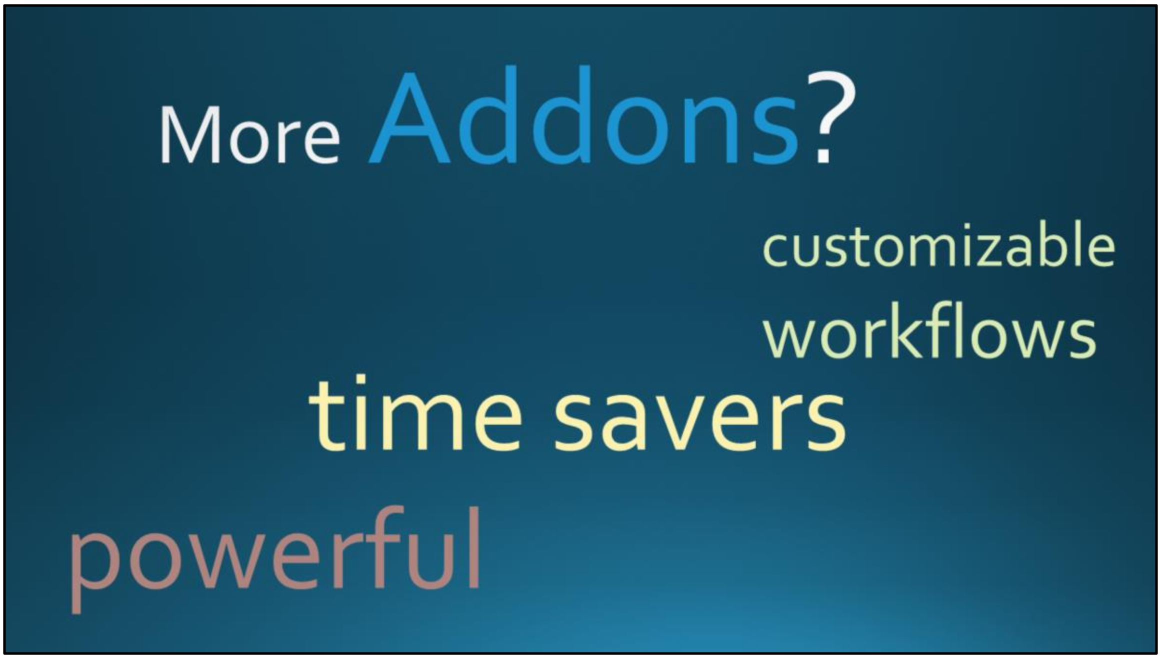
Request Sent = In Process

Customer notified via E-Mail = Pick-up at Circulation Desk

Awaiting DD Stacks Searching
In Document Delivery Print Queue
IN DD Stacks Searching
Awaiting Doc Del Scanning
Awaiting Article Printing

} In DocDel Processing

One topic that came up during the ILLiad conference was being able to rename queues or transaction statuses like in Aeon. Some patrons are confused by “Request Sent” and think that they should have already received the material and will call up asking where their materials are. BYU had the same the feeling that some of the queue names were ambiguous or confusing to their users. Using javascript, they remapped those terms into something their patrons would better understand. Often the queues are more meaningful to the staff but patron’s don’t care the specific status but just need to know that something is still being processed and is not yet ready. Through javascript it is possible to group multiple queue names into a single mapped term that patrons will better understand.



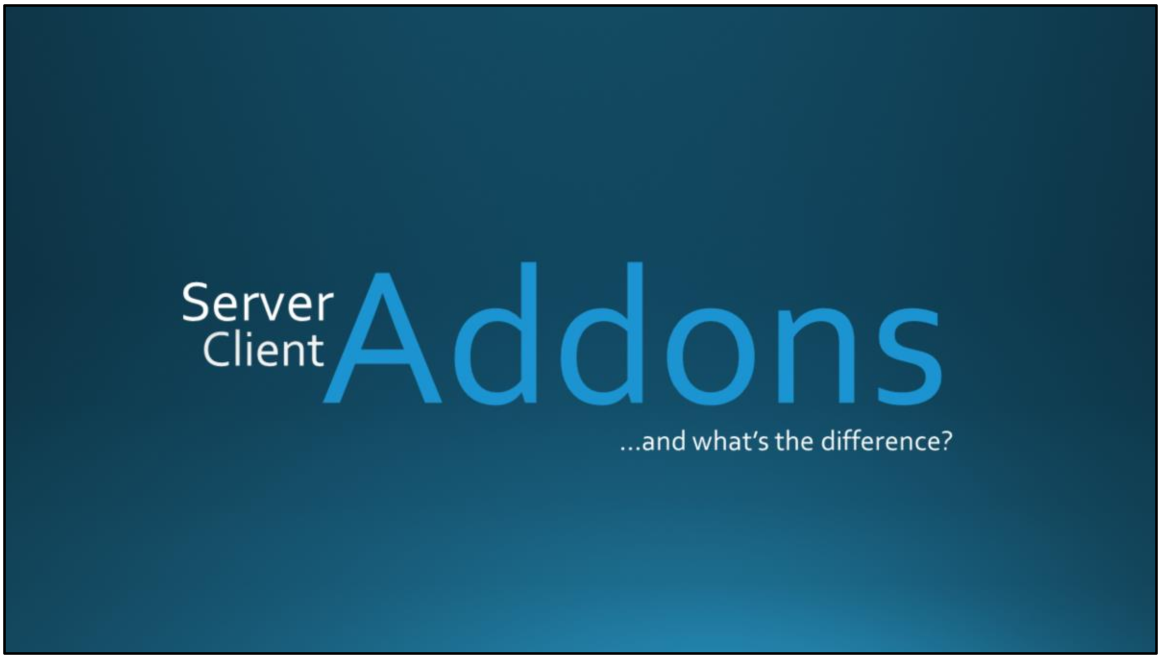
More Addons?

customizable workflows

time savers

powerful

For the past 3 years discussions of addons have been repeated over and over for good reason. They are powerful and can help with specialized processes so staff don’t have to handle monotonous tasks. They are custom to individual workflows so it doesn't have to be distributed to every ILLiad site or every staff member. They can save a lot of man hours of doing grunt work or help focus you back into ILLiad instead of having multiple windows open to different browsers which may be distracting to go back and forth between browser and the ILLiad client.



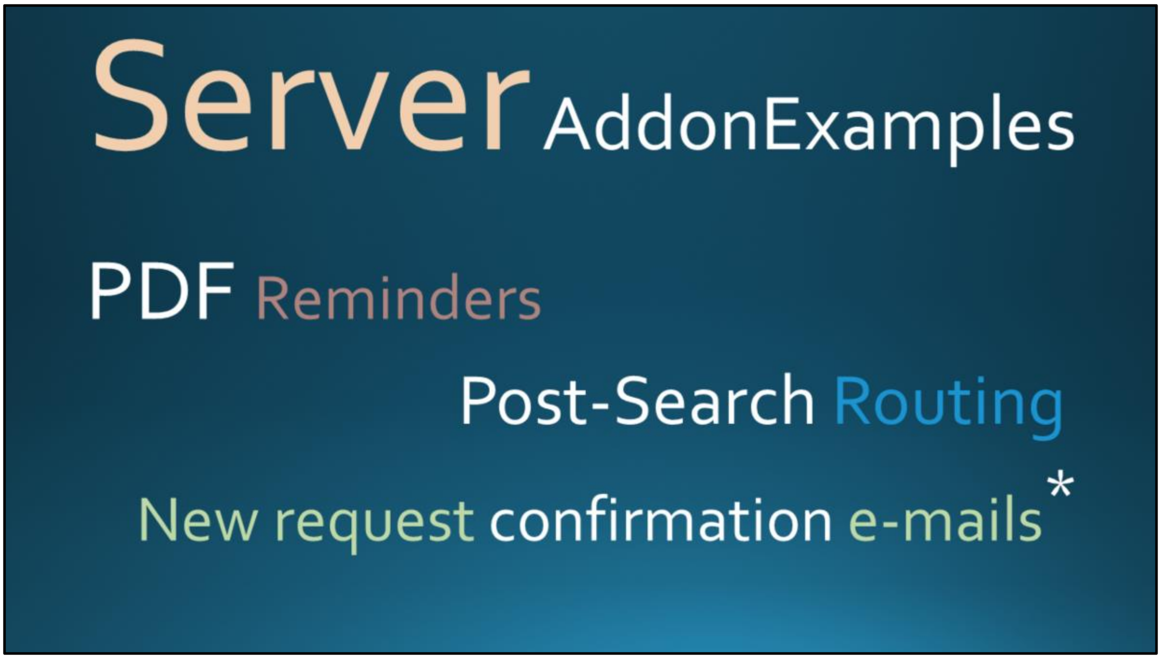
Server
Client
Addons

...and what's the difference?

Client Addons are used within the client. They require a staff member to have the client open and the staff member is usually interacting with the addon.

Server Addons came out in v8.3. They are run by the System Manager and the code is added via the customization manager. Possibility of adding these server addons as packages instead of copying and pasting code. By default server addons run every 5 minutes; the shortest allowed interval is 1 minute.

Both are powerful but have different strengths.



Server AddonExamples

PDF Reminders

Post-Search Routing

New request confirmation e-mails*

Server addons are still young and don’t get talked about as much. No one has to open the addon or look at a request to make it do something. Great for automating tasks

PDF Reminders addon solves issue of patrons not remembering to view their electronically delivered materials. Addon looks to see if patron has viewed material and will send a message out if they haven’t viewed the article to give them another chance to get it before it is purged from the server.

Post-Search routing is a highly specialized addon in use by the University of Michigan. They are a high volume site and processing roughly 630 lending requests a day. This addon helps to automate about 80% of those requests by searching the catalog for the requests. They use an external process to extract data in certain queues and will perform standard number searches in their catalog against the data from the extracts. Their process will determine the availability of materials in their catalog and create files based on if it can be fulfilled or if it should be cancelled with a reason. The addon will then parse the files that were generated to route requests into different queues and import the call number and location data if the request can be handled.

While not yet created, another good example came up during BYU’s presentation.

They want to be able to send a confirmation email to users after a request has been placed. This can be done by getting all of the requests in some of the initial queues and using addon code to generate an email for the request.

The IDS Technology Development Team has also release a framework for a server-level routing addon.

Client Addon Examples

http://tinyurl.com/AddonDirectory

Catalog Lookups

Web helpers

Purchase on-demand

Client addons can work on the request, user or main forms of the ILLiad client. Typically you will find the addons working on the request forms since that is where you'll do most of your work.

There are a ton of examples available in the addons directory. As you browse the directory you'll probably notice a couple of themes. Most addons are for the request form. It's where you do most of your work so it makes sense that addons are going to be the most helpful when dealing with a request.

While not restricted to these categorizations, we often see 3 major types of client addons.

- Catalog Lookups - The addon directory now has a good number of the catalogs on there and help to perform searches typically by title, author and standard number. The addons will then generally do an import of the location and call number. Depending on the individual addon, these can be helpful to perform lookups in your catalog as soon as the request form is opened.
- Web Helpers - They are your addons which basically just open a browser to a commonly used. They may not be related to an individual request. Some examples of this may be accessing the Atlas Training site, the Webmail addon which simply

opens a custom webmail URL. *if you are interested in learning how to develop an addon this is probably your first step since you can just navigate to a site and you're basically done in 10 lines of code.*

- Purchase on demand - Better World Books, GIST Purchase which covers many resources like Amazon, B&N and more and finally the CCC Get It now addon are examples of addons allowing you to purchase materials for a request directly. The newest Get It Now addon isn't just a webrowser but also communicates with OCLC WebServices via the new ILLiad WebPlatform.

"What is this WebPlatform that I keep hearing about in 8.4"?

...and why do I care

With the release of ILLiad 8.4 the listservs have been abuzz about the WebPlatform and adding WsKeys, but what is the WebPlatform?

The ILLiad WebPlatform is involved with 3 of the new major features included in ILLiad 8.4: Article Exchange integration, the Get It Now with IFM support addon, and ILLiad/Aeon integration.

WebPlatform new for 8.4

Web API

REST

SSL

API Keys

The WebPlatform is a new component that was added for v8.4 to serve as an API.

WebAPI is a programmatic interface to allow communication with your ILLiad instance. It handles requests and response messages using both JSON and XML from other systems. The WebPlatform uses the REST protocol (representational state transfer/popular for web apis)

The WebPlatform lives on your webserver along with the DLL, WebReports and WebCirc. It is not in the same main ILLiad webdirectory to prevent remote auth systems from blocking access because the WebPlatform must be available publicly.

It’s similar to the windows services like your Connection Manager and System Manager. If you are shared server there is only 1 webplatform.

The WebPlatform is the cause of the new SSL requirement in ILLiad 8.4. Since data about requests and other sensitive information will be transmitted through the WebPlatform it is important to encrypt that data.

Any system connecting to the WebPlatform requires an API Key, including the ILLiad client. When creating records in your WebPlatform config table you are creating unique non-reproducible keys composed of alphanumeric characters. Site note: The chance of you being hit by a meteorite is one in 17 billion. The chance of a duplicate for an API key is if 1 in something between a quadrillion and a quintillion. Even if every ILLiad licensee updates to 8.4 tomorrow and created 100 API keys, we are pretty certain there would not be a duplicate API key created.

Why this WebPlatform?

We talked about what the WebPlatform is in a lot of big words what it is, but we didn't address the why.

For Atlas, a single API means one place for code to live and one thing responsible for handling the logic for all of the actions taken by the client and all of the other components working within ILLiad. In addition, some sites want more access to their data. While you can get read-only db access to run some reports within Access, that doesn't really help when you're trying to develop something that queries against your ILLiad database live. Addons have made a great headway into allowing sites to customize workflows and make things more tailored for their own needs but there is still a gap in data access especially when trying to initiate a process outside of ILLiad.

If you're self hosted you may be thinking you can already access the database whenever you want and can manipulate the data in your database. Do you really want to though? There are a lot of processes that happen in the background that need to be considered. Cancelling a request in ILLiad actually spawns about 5 different actions. Routing the request and any related routing rules, possibly sending an email to notify the user or update OCLC to indicate you can't fulfill the request. As of 8.4 if the request is associated with a transaction in Aeon it will try to cancel that as well. It’s easy to miss a step if you are trying to handle all of that manually so it would be nice to have one thing responsible for a process than a specific action.

Why this WebPlatform?

WORK IN PROGRESS

The WebPlatform right now is not complete. ILLiad is a huge system and we are slowly trying to build the WebPlatform up to make it more useful as an API that you can use but that functionality is not currently available and the documentation for it is not ready. This is going to be a slow progression of getting all of the available functionality into the WebPlatform that your developers may want or need.

library dashboard

...once we know what you want or need.

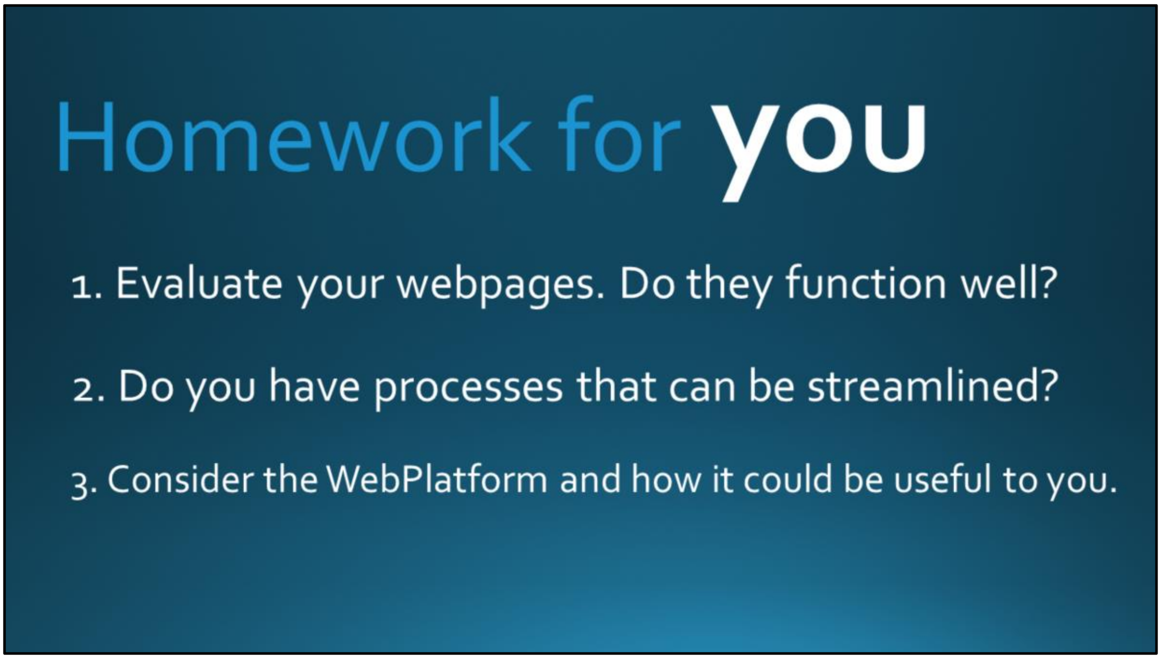
mobile apps

While the WebPlatform is not yet ready to be used, the opportunities for the WebPlatform are amazing once the data access is made available. While it's not ready yet, its important to think about what you may want to start doing with your ILLiad data in external systems endless. We aren't there yet, but we need to know what you want to do so we can make that functionality part of the WebPlatform as we move forward.

There are a lot of possibilities but if you're drawing a block as to what you would do with an ILLiad API, some ideas have come up already.

- Wouldn't it be nice if you could create or use an existing dashboard page that encompasses the catalog, interlibrary loan, reserves, and other library services. If you had programmatic access to a user's requests you could add this information to a page outside of ILLiad without requiring the user to navigate to a separate set of ILLiad Web pages. This is something that is already on BYU's roadmap that came up while they were doing their own usability study.
- Maybe you're looking to create you a facebook app for your library or access services department that could sends users a message when their materials have arrived.
- Maybe you want to integrate ILLiad with your courseware system

- While you already have access to mobile webpages as of v8.3, maybe your library is considering creating mobile apps and you'd like to integrate ILLiad data into those apps.

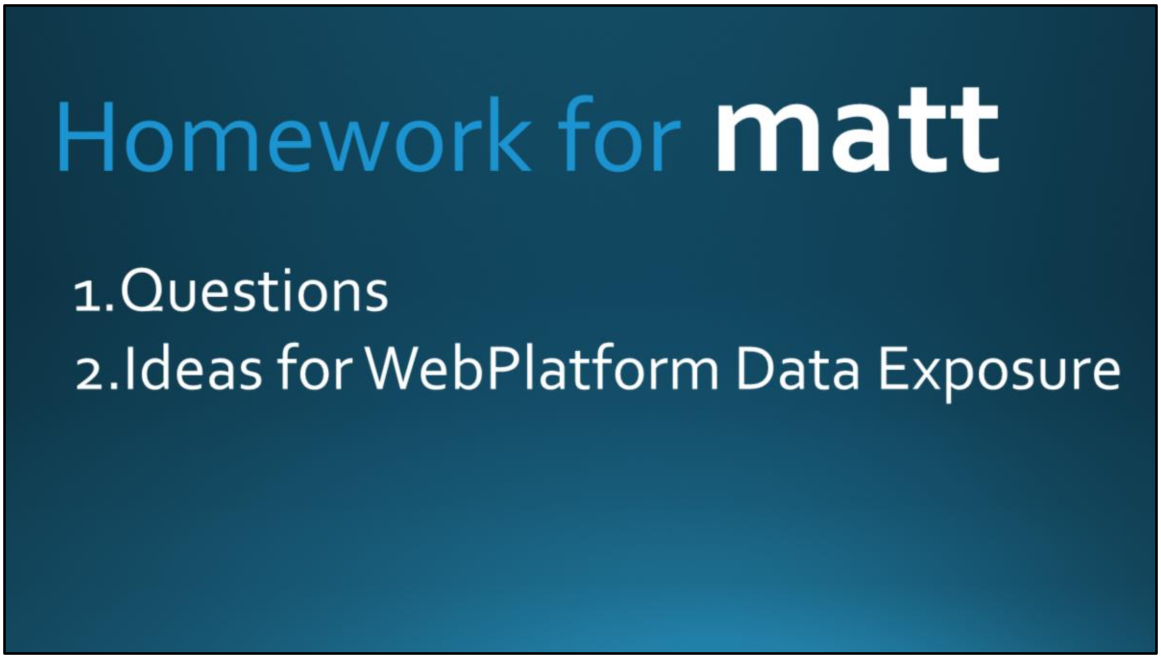


Homework for **you**

1. Evaluate your webpages. Do they function well?

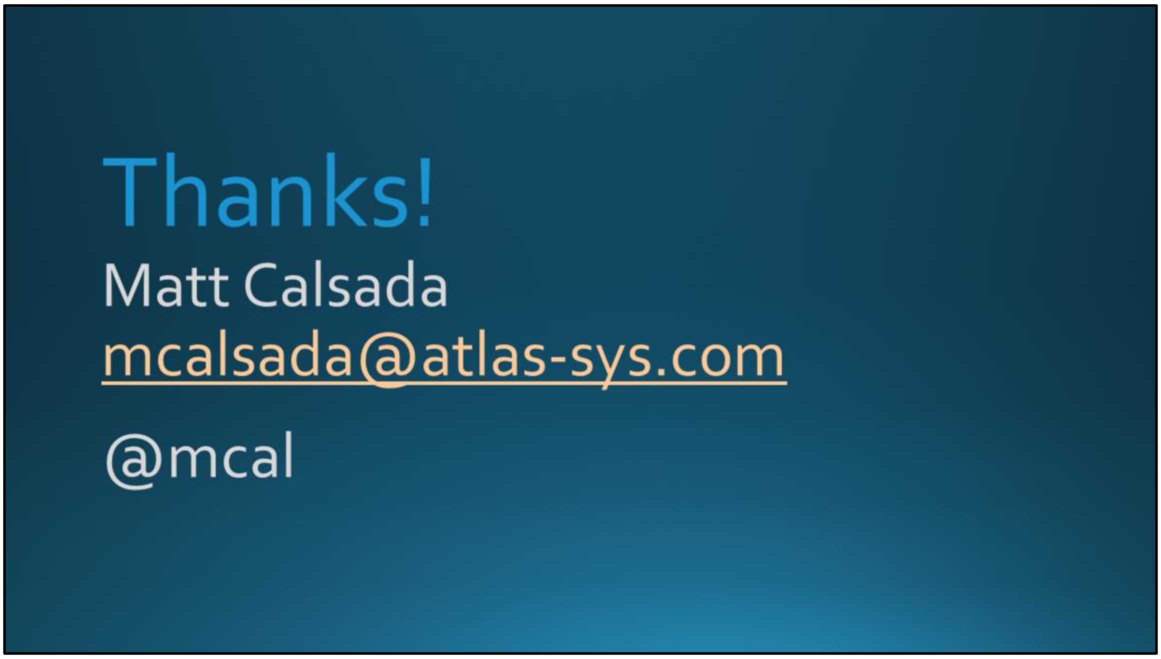
2. Do you have processes that can be streamlined?

3. Consider the WebPlatform and how it could be useful to you.



Homework for **matt**

1. Questions
2. Ideas for WebPlatform Data Exposure



Thanks!

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