Hello. Today I’m going to talk a bit about our Research Portals project. The effort won a Campus Innovator Award from Campus Technology magazine last year and this is a bit of background and then an update and demo of the system. You’ll notice the subtitle: Integrating Librarians and Academic Programs. That’s the key to this effort—putting our librarians in closer contact with the researchers they serve.
I want to break today’s talk into roughly three areas: 1) Why are we putting this energy into research portals; 2) a brief look at some of the technology we’re using to make the portals possible and 3) a brief demo and fly–by on a representative sample of our portals--pointing out some of the things that each is doing.
WHY RESEARCH PORTALS?

So, why research portals?
As we’ll see today, there are a number of answers to that question but the one thing that accelerated our interest was the President’s Library Task Force report in 2005. Drawn from faculty across our campuses, this group set out to define what the library needed to do to enable the university to meet its strategic goals for 2010 and beyond. The central theme was that more resources needed to be invested in the library—and librarians needed to transition to new services to better support faculty and research.
“Mason’s library system is transforming itself, moving beyond its continuing repository function to a digital portal…”

“The library will strengthen its academic collaborations by developing research portals for digitally-based scholarly resources tailored to specific disciplines or academic programs.”

“Customized services will be developed for patron groups and/or academic units…”

“Liaison librarians will actively participate in the curriculum where the skills of information and knowledge management are taught to the students.”

“Librarians will streamline the library research process to help improve students’ academic performance and learning outcomes, as well as faculty research productivity.”

Excerpts from the report of the President’s Task Force on Libraries.
We’re pretty busy. Why should we try to find time for this?

Many librarians embraced the task force report but some, like this fellow, wondered how they could justify the time these new services would require—when they were already so busy.

Not sure why I felt drawn to an image of a camel hauling straw...
This is a complicated question. OK, you’re right, maybe it’s not that complicated...
I’m ready to say that we’re losing market share and need to do something about it. First, let me share a few of the datapoints that I’m basing this opinion upon...
Use of the physical library is declining

It’s clear to me that the use of the physical library—the number of people coming in the door—is declining.
Consider the reference desk. Between 1992 and 2008, the number of interactions at the desk for your average ARL library has fallen from 132,000 per year to 58,700...dropping just over 4% each year. If this trend line continues, before too much longer you’ll be seeing old reference desks on eBay. The drop since 1992? 55%. Remember that number for a minute...
In 1998, there were 1.5 million websites...ten years later, Google alone operated more than 1 million servers.
Circulation has also steadily dropped during this period. From 32 books for full-time students in 1995 to roughly 18 in 2008.
And the budget percentage that we’re devoting to e-resources? Today it’s 51%.
Interesting trend lines, aren’t they? Coincidence?
Not hard to find “future of the academic library” pieces on the net. I settled on this one since I found myself in agreement with many of her points---Susan Perry, an advisor to the Andrew Mellon Foundation. Here are four “things to keep in mind” that seem relevant to this portal project.
Within 10 years, most academic information will be available in digital format.

Surely this is true.
The campus network will be our information delivery system.

My only quibble is the “will be” ... I’m sure we’re much more than halfway there.
Librarians today need to be: intellectually curious, collaborative, technologically sophisticated, good teachers, & adaptable.
Helping students find and evaluate accurate information is one of the most important roles for librarians now.
Should we view these trends as storm clouds?
...OR BE HAPPY THAT OUR USERS WANT US TO GO WHERE WE NEED TO BE HEADING?
INCREASED MARKET SHARE REQUIRES COMPETITIVE ADVANTAGE

THERE ARE FOUR TYPES OF COMPETITIVE ADVANTAGE:

LOW COST
CUSTOMIZED PRODUCTS
DELIVERY
QUALITY

Now if you walk down to our business school, they’ll explain that to increase market share you need a get a competitive advantage. There are four basic ways types of advantage you can shoot for: cost, custom products, delivery (speed and/or reliability) and quality.  I here to argue that developing a research portal hits all four and really focuses on two – customized products and quality (value added).
We need to move beyond thinking about library transactions and start thinking about how we can engender transformations in our users. Find new ways to engage and enlighten our undergraduates while also figuring out ways to boost the productivity of our researchers.
```c

// some info output on file header
OUTPUT_BYTE(order);    // some order
OUTPUT_BYTE(mp);      // no of symbols in mode
OUTPUT_BYTE(c);       // output upper byte then upper byte
OUTPUT_BYTE (h)>>BYTE_SIZE;
OUTPUT_BYTE (h);
OUTPUT_BYTE (w)>>BYTE_SIZE;
OUTPUT_BYTE (w);

order1 = order>>4;
order2 = order & 15;

#define TRACE
if (! (fpm = fopen("ppmenc.doc", "wb")
{
    fprintf(stderr, "\n Error: Can

    exit(2);

} #endif

/* allocate 'order+1' elements
() is used to store
*/
Design Goals
• EASE OF USE IMPORTANT FOR LIBRARIAN “CURATORS”
• PERSONALIZATION NOT A REQUIREMENT
• MUST OFFER WAY TO ENGAGE VARIOUS WEB SERVICES
• MUST PRODUCE AS WELL AS INCORPORATE RSS FEEDS
• REASONABLY SIMPLE IMPLEMENTATION FOR LIBRARY IT
• LOW IMPACT / LOW MAINTENANCE / LOW COST

These were our “software” goals. The first two were informed by our experience with a MyLibrary project a few years back. Our librarians never really got enthused about adding content and the project never took off. No content = Nothing else happens.
We looked at a number of different packages...some quite large.
Instead of one large package, we decided to combine several open source packages to build our portal platform: WordPress, Scout Toolkit (CWIS) and MagpieRSS (for our latest issue TOC feeds).
Wordpress handles the “blog” function--which gives our librarian curators a way to set up discussions and push out news. We use Wordpress widgets to build the search boxes and RSS feeds you see on the right side of this portal’s home page.
Wordpress also supports static pages. We use a couple of those to provide a place for librarians to offer links and another to handle TOC feeds from relevant journals.
Another nice feature of Wordpress is the ability to change the look of a portal by tweaking its theme.
Another nice feature of Wordpress is the ability to change the look of a portal by tweaking its theme.
We use Scout Internet Portal Toolkit (out of U. Wisconsin), specifically their CWIS package to enable each portal to offer a database of resources. This gives us the “subject guide” component.
If you sign in to the resource tab, you can rate resources and receive “recommendations”. ..
we don’t find the recommendations particularly useful since it is such a small database. This
bioinformatics portal contains around 400 sources. If it were thousands, then recommending
might make more sense. One problem with CWIS is that it is extremely complicated
software—difficult to tweak. We added a few functions (e.g., check for broken URLs in the
resource database) but it takes too much time. In some of our more recent portals, we’ve
abandoned CWIS for the resources section and just used inter-linked static WordPress pages
for resources. If a portal has fewer than 100 resources, the CWIS package is just overkill.
Latest Issues

A number of publishers make the contents of the latest issue available via RSS feeds. Here are the feed URLs for each journal. Click on the Journal Name to see the latest issue's contents. Where possible, we have included the feed subscription URL for each of these journals. To subscribe to one of these feeds with your personal newsreader, use the italized URL. The content of these RSS feeds has been filtered by code on this portal server (modifying links to individual articles so that they'll go through our validation/proxy server which will give Mason affiliates access even when away from Mason's network).

Bioinformatics
http://bioinformatics.oxfordjournals.org/archive/

BioSystems
http://www.sciedirect.com/science/journal/03032647

Biotechnology and Bioengineering
http://www3.interscience.wiley.com/journal/71002188

BMC Bioinformatics
http://www.biomedcentral.com/bmcbioinformatics/

Cell
http://www.sciedirect.com/science/journal/0028674

ChemBioChem
http://www3.interscience.wiley.com/journal/72510898

Computational Biology and Chemistry
http://www.sciedirect.com/science/journal/14769271

Computer Methods and Programs in Biomedicine
http://www.sciedirect.com/science/journal/01692607

Current Opinion in Biotechnology
http://www.sciedirect.com/science/journal/09581669

Current Opinion in Cell Biology
http://www.sciedirect.com/science/journal/09550574

Current Opinion in Chemical Biology
http://www.sciedirect.com/science/journal/15679931

Current Opinion in Genetics & Development
http://www.sciedirect.com/science/journal/0959437x

Current Opinion in Structural Biology
http://www.sciedirect.com/science/journal/15687864

DNA Repair
http://www.sciedirect.com/science/journal/15687864
We use magpieRSS to build this set of links. We have a small bit of php code that goes through this list, building links that include our proxy server (so researchers can access the content regardless of their location).
We tie these packages together via CSS. The tabs at the top (we have to tweak both the WordPress theme and the CWIS themes to tie them together). Note we also bring content from the CWIS package to the homepage of the WordPress portion of the portal via RSS.
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This shows how you add a widget...in this case, a search box for LC’s American Memory project.
We’re now working with Deep Web Technologies to offer subject-specific federated search engines for our various portals. The knock on federated search is that the signal to noise ratio is too low—too much irrelevant information retrieved. We think limiting the sources for the search by subject dramatically reduces this problem. We also view the selection of sources to search an important “carrot” that our librarians can use to involve faculty in discussions about the portal (and other services). Ideally, these boutique search engines should strive to include sources that don’t get indexed adequately elsewhere. For example, in this example (Colonial History) we’ve included the National Archives website...and because we’re in Virginia, the Virginia Heritage Project as well.
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A sample screen from a search on “williamsburg” Hitting that “home” link returns you to the portal.
Introducing a new idea like research portals is all about change management.

**Change Management**

**Organizational Turbulence:** Scaling up to full production and maintenance mode.

Getting beyond "Why do we need to do this?"

**Paradigm Shift for Librarians:**

"Why do we need to do this?"

Organizational Turbulence: Scaling up to full production and maintenance mode.

Adding higher level of attention to graduate support/research.

**Library Buy-In:**

We're doing something new and success or failure will have a highly visible metric: usage.

We're moving from "helping with research" to "improving researcher productivity".

**The Research Portal Will Replace The Library Website for Specific Audiences.**

"We're moving from "helping with research" to "improving researcher productivity".

"Getting beyond "Why do we need to do this?""

**Paradigm Shift for Librarians:**

"Why do we need to do this?"

**We're moving from "helping with research" to "improving researcher productivity".**

Assisting/training less technically oriented librarians to succeed.

A successful research portal is not a single event. It requires ongoing maintenance and addition of new content.

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"Getting beyond "Why do we need to do this?""
We put up this site to serve as documentation for our project.
Research Portals Support Site

Portfolio

Anthropology
Art Education
Artificial Intelligence
Atmospheric, Oceanic and Earth Studies
Biodefense
Bioengineering
Bioinformatics
Conflict Resolution
Cultural Studies
Early US History
Earth Observing and Space Research
Economics
Foreign Languages
Global Research & Education
Health and Strategic Communication
Industrial and Organizational Psychology
Music Education
Neuroscience
Nursing Administration
Special Education

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Example code for a WordPress widget to search our catalog
Research Portals Support Site

Portfolio

Anthropology
Arts Education
Artificial Intelligence
Astronomy, Cosmology and Earth Sciences
BioMedicine
Biotechnology
Biostatistics
Cultural Studies
Data, Job, Mining
Earth Observing and Space Research
Economics
Foreign Languages
Global Affairs 
Global Development
Health and Human Demographics
Human and Social Development, Psychology
Music, Education
Neuroscience
Normative Science
Special Education

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Erin

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