Simplifying the Discovery Environment – Final Report

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Introduction

The Simplifying the Discovery Environment initiative, one of four library-wide strategic objectives identified for FY 2013, aimed to “increase the discovery and use of library resources for members of the MIT community by simplifying user discovery of and access to electronic resources via the MIT Libraries website” [1]. The initiative was intentionally scoped to yield tangible improvements within a single fiscal year, beginning in July 2012 and concluding in June 2013. The major goals outlined at the start of this initiative were successfully completed on schedule. This report summarizes the major accomplishments of the initiative.

Review of Goals

In August 2012, the newly formed Simplifying the Discovery Environment Team identified three high-level requirements to be accomplished by the team. These requirements were captured in a project brief for the initiative [2]. The requirements were:

1. **Provide oversight for the scoped implementation of a vended discovery service**
   (implementation to be done by separate team)

   This goal was achieved through the deployment of the EBSCO Discovery Service (a vended discovery service hereafter referred to as "EDS"). The MIT deployment of EDS was officially deployed on June 17, 2013 under the name of "BartonPlus".

2. **Develop a new design for the MIT Libraries web environment that makes it easier for users to find the right information resources for their research needs**

   This goal was achieved through a redesign of search options on the MIT Libraries homepage and updated navigation on secondary pages, to both accommodate the new BartonPlus service and streamline search options for users.

3. **Recommend next steps for ongoing management, assessment and improvement of our discovery environment**

   This goal was advanced, though not fully achieved, through the deployment of a website analytics framework on the MIT Libraries homepage and in the BartonPlus service.

   Additionally, the Project Brief outlined 13 distinct activities to be completed in two phases, a "Research & Planning" phase, and a "Deployment" phase. All 13 activities were successfully completed as part of this initiative.
Team

Core Team

- Tito Sierra, Director's Office (Project Lead)
- Melissa Feiden, Information Delivery and Library Access (Project Manager)
- Matt Bernhardt, Software Development and Analysis
- Darcy Duke, User Experience
- Millicent Gaskell, Collections Strategy and Management
- Rich Wenger, Digital Operations and Systems

Extended Team

- Jennifer Edwards, Collections Strategy and Management
- Remlee Green, User Experience
- Christine Moulen, Digital Operations and Systems

The core team undertook the early research and planning work for the initiative. In October 2012, the Discovery Service Implementation Task Group was created to lead the EDS deployment effort [3]. In January, five additional task groups were created to lead different aspects of the Simplifying Discovery initiative including assessment and staff engagement activities. The five task groups, each composed of 2-4 members of the Simplifying the Discovery Environment Team, functioned as independent working groups that consulted with and reported to the full core team on an as-needed basis. This task group model was highly successful in moving the initiative forward efficiently and effectively.

Major Accomplishments

Research and Planning

The first few months of the Simplifying Discovery initiative focused on a set of research and planning activities:

- Reviewed several articles and reports related to library discovery
- Completed an inventory of existing MIT Libraries e-resource content and tools
- Completed an environmental scan of peer library discovery environments [4][5]
- Completed a project brief for the initiative [2]

These research and planning activities enabled the team to develop a shared understanding of the goals of the initiative and establish norms for how the team would proceed to accomplish the goals of the initiative.

BartonPlus Deployment

The single most significant outcome of the Simplifying Discovery initiative was the deployment of the new BartonPlus service in June 2013. BartonPlus is the MIT Libraries’ implementation of the EBSCO Discovery Service product, a hosted library search product
from EBSCO Information Services. BartonPlus is currently configured to search most MIT-licensed e-resources, including e-books and full-text articles, as well as items in the Barton catalog. BartonPlus adds value by enabling library users to search for both library tangible collections and licensed electronic resources in a single discovery interface. Key features of BartonPlus include relevance ranked search results, faceted search refinement options, book covers and preview images, and citation management tools. BartonPlus provides a substantially better user experience for searching licensed e-resources compared to previous generation tools such as Vera MultiSearch. The improvements are evident in content coverage, functionality, and retrieval performance. Consequently, the new BartonPlus service replaces Vera MultiSearch as the recommended service for general full-text article search at the MIT Libraries. Apart from Vera MultiSearch, no other services were replaced as a result of the BartonPlus deployment.

**Redesign of Homepage Search Options**

The updated design features the new BartonPlus service as a default “Start your search” option. The labels for other search tools were modestly refreshed to accommodate the new discovery service and were informed by feedback from two rounds of user testing. The “E-journals & Databases” tab was enhanced by including a list of “Popular” databases based on usage metrics. Additional search options are now featured in a new "More search options" tab.

**Staff Communication and Engagement**

The team broadly engaged MIT Libraries staff in the Simplifying Discovery initiative through a variety of channels throughout the year:

- An email list was created to facilitate direct communication with the Simplifying the Discovery Environment Team
- A project website was created that provided background information about the initiative, including the team charge, team membership, contact information, and project updates [6]
- Formal project updates were delivered via email to all staff on a monthly basis; these updates summarized major accomplishments in last month and included links to relevant documents produced by the team (e.g., planning documents, usability test results, design previews) [7]
- Regular updates on the initiative were delivered at Library Council meetings
- In February 2013, members of the Simplifying Discovery team met with IRS and LDLC staff groups to provide an overview of the initiative, demo EDS, and engage staff in testing EDS
- In March 2013, members of IDLA, RIS, LDLC, and UX departments were involved in formal testing of the EDS implementation
- In March 2013, two open staff sessions provided staff with an introduction and early preview of the EDS implementation
- In March 2013, representatives from EBSCO Publishing visited the MIT Libraries to deliver a presentation to all staff about EDS, meet with the Simplifying the Discovery Environment Team, and participate in a feedback session with library staff involved in EDS testing
• In April 2013, members of the Simplifying the Discovery Environment Team met with the MIT Libraries’ Marketing Group to work on a communication plan with the broader MIT community
• In May 2013, several volunteer library staff participated in usability testing the new discovery environment and the EDS implementation

Collectively, these communication activities provided opportunities for library staff outside the Simplifying the Discovery Environment Team to engage with and shape the initiative prior to launch. The initiative benefited greatly from constructive feedback shared by library staff across the organization.

Assessment Activities

The team pursued a range of qualitative and quantitative assessment activities to evaluate and optimize the discovery environment changes that emerged from this initiative. The Discovery Team Assessment Plan describes these activities in more detail [8]. The activities included usability testing with members of the MIT community, staff evaluations of the EDS implementation, an accessibility evaluation led by MIT’s Accessibility Team, and deployment of custom website analytics. Each of these activities yielded actionable information that was used to improve the design and functionality of the discovery environment changes prior to launch. Where appropriate, findings from these assessment activities were passed along to EBSCO to improve MIT’s implementation of the EDS product. For example, the usability test led by the User Interface Group (UIG) in May 2013 concluded with a debrief meeting that was attended by several representatives from EBSCO [9].

Deployment of Discovery Environment Analytics Framework

A website analytics framework powered by Google Analytics was developed and deployed to track usage behavior in the discovery environment, both on the MIT Libraries homepage, and within the BartonPlus service. The analytics framework enables ongoing collection of anonymized usage data to provide a quantitative view of how users interact with the discovery environment. In May 2013, a homepage search analytics report covering the spring 2013 semester time period was shared with library staff as a preview of what can be learned from the discovery environment analytics framework [10]. The report also provides a useful benchmark for future comparative analysis.

Areas for Future Work

Although the Simplifying the Discovery Environment team largely achieved the goals identified for the initiative, additional work is required to fully realize the benefits of the initiative longer term. This section highlights areas of future work related to discovery that should be prioritized and resourced in the coming year.

EDS Transitional Support Team

In June 2013, the EDS Transitional Support Team was formed to provide product support of the EDS-powered BartonPlus service post-launch [11]. The EDS Transitional Support team
owns EDS product administration and support, provides primary point-of-content for EDS enhancement requests, and will explore options for improving the BartonPlus service.

**BartonPlus Service Enhancements**

The EDS Transitional Support Team has identified several areas to improve the BartonPlus service in the near-term:

- Improve known-item searching: Staff and usability testing has shown that known-item searching in BartonPlus is problematic. The EDS Transitional Support Team has already worked with EBSCO on improvements, and they deployed changes to our relevancy ranking to give more weight to known items. We will continue to work with EBSCO on improvements in this area as feedback comes in from the user community.
- Improve course reserves searching: The amount of content indexed in BartonPlus can make searching for course reserves difficult. The EDS Transitional Support Team will work with EBSCO on possible solutions for this and in the meantime, classic Barton course reserves searching will remain as usual.
- Improve access to full text: Currently there are a variety of ways users can access full text via BartonPlus, such as the Libraries SFX button, an SFX plain text link, EDS custom links such as HTML full text or PDF icons, and online access links that come from our Barton records. User testing showed that the variety of links is confusing and users recommended creating and using one button that provides access to full text, regardless of how access is provided.
- Use Ex Libris APIs to provide OPAC-like features in BartonPlus: The Transitional Support Team has already engaged EBSCO in a conversation about using Ex Libris Aleph APIs to provide some OPAC “Your Account” features in BartonPlus, such as requesting, renewing, and viewing fines.
- Provide single sign-on for EBSCOHost accounts: Although single sign-on via Touchstone is already enabled for off-campus access to BartonPlus, there is a separate log in within BartonPlus to use the EBSCOHost features such as saving records to folders. EBSCO has told us that they are working to enable single sign-on for these features in fall 2013, at which time the Transitional Support Team will work to enable this for BartonPlus.

**BartonPlus Promotion**

The Libraries Marketing Committee will engage in promotion of BartonPlus as the fall term begins. This will include usual publicity platforms such as the Libraries news blog, service desk display monitors, posters/postcards, and the BiblioTech newsletter. An email will also be sent to LDLC to use for communicating with their departments. BartonPlus will also be included in materials for fall orientation, such as the Libraries Map & Guide, "Welcome to the Libraries" card, and "What we did on your summer vacation" flier. These materials will remain at all public service desks through the end of the fiscal year.

**Improving Delivery of Content**

Although improvements have been made to the discovery of information resources on the MIT Libraries website, additional work remains to improve the delivery of licensed e-
resource content, particularly content delivered via SFX, MIT Libraries' link resolution product. In 2012, members of UIG, working with Rich Wenger, wrote a proposal for improving SFX, specifically the design of SFX menus. The group created design mockups for new SFX menus based on feedback from user testing and an environmental scan of other institutions’ SFX menus. However, the work of enhancing our SFX menus was put on hold as the Libraries embarked on choosing a vended discovery service. Now that BartonPlus is implemented, UIG would like to review the former SFX redesign proposal and work on implementing the much-needed improvements to this service. The EDS Transitional Support Team will also either implement or recommend improvements to making cohesive the various ways full-text is presented in BartonPlus.

Ongoing Assessment of the Discovery Environment

The discovery environment analytics framework deployed as part of this initiative provides an excellent foundation for ongoing assessment of the discovery environment. It provides the Libraries with an unprecedented opportunity to empirically understand how our users search for information resources on the MIT Libraries website. However, it takes time to build enough data to draw conclusions from analytics data. Once enough data has been collected, additional work is required to analyze and interpret data to inform further refinement of the discovery environment.

Discovery Service Evaluation and Renewal Considerations

Hosted discovery services, such as EDS, do not require long-term commitments. All major library discovery service providers (e.g., EBSCO, Ex Libris, SerialSolutions) offer their discovery products as a vendor-hosted solution rather than locally installed software. This is good for libraries as it significantly reduces, though does not eliminate, the implementation costs of migrating from one vendor’s product to another. After a reasonable amount of time has elapsed with EDS-powered BartonPlus in production (e.g., 18-24 months), the MIT Libraries should evaluate the BartonPlus experience to determine whether alternatives to EDS for library resource discovery should be explored. The discovery service marketplace is highly competitive and rapidly evolving, therefore periodic evaluation of solutions in this space is worthwhile to identify the best solutions for our user community.

Concluding Thoughts

Although this initiative yielded substantial improvements to the discovery and access of electronic resources online, particularly through the deployment of the new BartonPlus service, we cannot declare "mission accomplished" on the broader challenges of library information resource discovery.

The Simplifying Discovery initiative was primarily scoped to improve discovery of licensed electronic resources, not discovery of all online/digital collections at MIT. This narrow scoping was motivated by a pragmatic desire to yield tangible improvements to the discovery environment within a single year. Although this scoping was appropriate, significant work remains to improve discovery and access to non-licensed digital collections that were explicitly out of scope for this initiative, such as DSpace@MIT collections, Dome collections, and other Institute Archives collections.
Ideally, the discovery environment is continually assessed and improved to take advantage of new technology and services, and to be responsive to changing user needs. Although the Simplifying Discovery team is proud of the accomplishments of the last year, we believe it is important to advance this work on an ongoing basis.

Notes


6. Simplifying the Discovery Environment [project website]: http://libguides.mit.edu/discovery

7. Simplifying the Discovery Environment – Project Updates: http://libguides.mit.edu/content.php?pid=373434&sid=3059140


9. Homepage and EDS (Discovery) [usability test documentation]: http://wikis.mit.edu/confluence/x/F0okBQ
