

Spectacle Project Summary

What is Spectacle?

Spectacle is a slide show generator that allows a user to find images from Harvard library and museum collections and incorporate them into an online slide show. Each image is linked to the library's descriptive metadata for the image and the Harvard collection within which it resides.

Who may use it?

Spectacle may be used by anyone. We hope and expect that Harvard faculty, students, administrators, librarians and curators will all make use of the system, but we also hope that users beyond Harvard find the system useful and fun.

What library content does it make available?

For more than a decade Harvard libraries and museums have been making and collecting content that can be delivered online. Millions of public domain and Harvard-owned images can be included in Spectacle slide shows -- images of photographs, book and manuscript pages, paintings, plant and animal specimens, art objects and ephemera.

What was the argument for building it?

We wanted an easy way to gather amazing images from Harvard collections and to share them online, and we had no trouble coming up with potential use cases:

- ⤴ Faculty could create slides shows for classroom instruction, or link to them as supplemental resources for students.
- ⤴ Slide shows could be for public presentation by library and museum staff, university administrators and faculty.
- ⤴ Slide shows could run on public kiosks and on idle workstations to raise local awareness of the riches of Harvard Library collections.
- ⤴ Online exhibits could be assembled quickly, without tasking web managers or developers.

We hope that many users beyond Harvard will find interesting content that they can assemble to support their own teaching and learning; or just for the pleasure of discovering and sharing images that please, fascinate, or confound.

In addition to all of the reasons that inspired the development of Harvard Spectacle, we hope to hear that it finds uses and audiences that we've never considered.

Technical notes

Spectacle is a PHP web app created using the Symfony2 framework backed by a PostgreSQL database.

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The application consists of two main components: the image retrieval and normalization component, and the slide show editing and display component.

The image retrieval and normalization component was written with a focus on extensibility. This component defines a number of general interfaces that provide for keyword searching, image importation, and image and image collection retrieval. Scripts conforming to these interfaces may be written and easily “bolted-on” to Spectacle to allow the app access to new images sources. These new sources would then be automatically searchable from within the Spectacle interface, and users would immediately be able to seamlessly incorporate images from these sources into their slide shows. (All images retain links back to the original records within their respective sources.) Conforming scripts were written to retrieve images from Harvard’s VIA, OASIS, TED, and PDS systems.

The VIA script searches for images and fetches corresponding metadata using the beta HOLLIS PRESTO API. The OASIS and TED scripts use a new beta API created by the Office for Information Systems specifically for Spectacle. We worked with OIS directly in the creation of these new APIs, and they have been designed to make Harvard’s public digital resources easily searchable and consumable by any third-party application developer - not just our team. As the first consumer of these APIs, we found numerous bugs and reported them back to OIS. OIS is currently looking at extending these APIs to VIA, PDS, and potentially the entirety of HOLLIS.

The slide show editing and display component of Spectacle makes extensive use of the open-source jQuery and jQuery UI libraries. The slideshow display itself is a heavily modified version of the Supersized jQuery plugin. Modifications include UI changes, a different image loading scheme, and numerous bug fixes related to image resizing.

The Symfony2 framework in which Spectacle was built is itself a newly released (after 2.5 years of development), enterprise-focused, open-source PHP-based alternative to Ruby on Rails. As early adopters of this framework, we were able to contribute back to the open-source community surrounding Symfony2. A major bug was identified in Symfony2’s default asset manager and reported to the core developer. In addition, multiple tickets were issued with Symfony2’s core team pointing out areas in need of documentation.

Accomplishments

- ⤴ Functionally, the system is nearly complete enough to release as, beta.
- ⤴ A designer, Mia Moran from EMTYPE, worked to produce an attractive, clean design, and system logo.

Challenges

- ⤴ A key functional requirement for the system was to include digitized book page images within the pool of eligible slideshow content. This functionality has not been incorporated into the current, beta release of the system.

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An API for “page-turned” objects is being developed for the “A Reusable Tablet-Based Application for Library Collections” Library Lab project, and once this becomes available it is expected that Spectacle will be extended to meet this original, key functional requirement.

- ⤴ The development process surfaced a problem within VIA where many items were found marked as 'private', even though they are actually publicly accessible if you know the URL. It was discovered that VIA contains many records that are marked 'private' but are supposed to be marked 'public'.

Correctly re-coding these records as 'public' has the potential of opening many more digital records to the public. To date, the problem has not been corrected.

Next steps

- ⤴ Apply the final design, and in so doing, formalize the system work flow.
- ⤴ Based on the final design, consider what user documentation is required.
- ⤴ Secure a domain name or Harvard sub-domain name for the application.
- ⤴ Release the system to the select group of library staff that were consulted during development. Request that this group create slides shows to populate the public gallery of slide shows.
- ⤴ After a short soft release period, some additional testing using a variety of browsers, and with the public gallery of slide shows populated with a few high quality exemplar slide shows, release Spectacle to all comers.
- ⤴ Advertise the system via Twitter, and hopefully with a press initiative coordinated by Library Lab.

Budget

Total development hours: 470.70

Total development cost (including salary, benefits, overhead, and administration): \$58,146.59

Publicity

- ⤴ Twitter via @oscharvard and @libdigitization.
- ⤴ Podcast to be posted on Library Lab website
- ⤴ Announcement to be posted to vismat <visualmat@listlink.berkeley.edu> list.

Public presentations

4 October 2011, Bill Comstock and Justin Clark demonstrated the Library Slideshow Generator to a group of library staff selected for their interest in and familiarity with Harvard Library image collections. Attendees were asked to critique functionality, to provide suggestions for terminology used within the interface, were enlisted as beta testers for the system, and were asked to create slide shows that can populate the public gallery of slide shows in advance of the general release.

27 October 2011, Bill Comstock and Justin Clark demonstrated Spectacle at the Library Lab Showcase

Library Lab, Round 1, Final Report

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held in Lamont Library. Strong interest came from several repositories that wanted to use Spectacle immediately for online exhibitions. There was also enthusiastic interest in whether the tool might be used by faculty in the classroom.