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## **Extending the Library's Web Presence: Building an Online Timeline Using MIT's SIMILE Exhibit**

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### **Abstract**

Extending the library's presence beyond a brick and mortar structure is essential as resources become increasingly available in electronic format. One way to achieve this is to create a broad-reaching tool like a timeline using the Massachusetts Institute of Technology's Semantic Interoperability of Metadata and Information in unLike Environments Exhibit (MIT's SIMILE Exhibit), a cloud-based program that allows for the creation of data-driven websites with minimal programming or Web expertise. With this easy-to-learn technology, a library can extend its Web presence by providing online access to its rich historical collections. This article is a case study on the implementation of an online timeline, the "Sonoma County Timeline", which was used to showcase the library's resources at Sonoma State University. The author also demonstrates how to build a timeline using MIT's SIMILE Exhibit software, and how a timeline can be used to extend the library's presence to its community. A guide to managing the project, a status report for the Sonoma State University Library's instance of Exhibit, and a discussion of best practices are also detailed in the article.

Note: This article refers to files that can be downloaded at:  
<http://www.libraryinnovation.org/rt/suppFiles/195/0>

Imagine the following scenario: your library has an excellent regional history and genealogy department with knowledgeable librarians and lots of resources. The regional history desk and its librarians attract a fair amount of traffic. The problem is that the library is not open 24 hours a day and the regional desk is not fully staffed during the hours the library is open. Getting the word out about the regional history department, its great resources, and its even more resourceful librarians can be a challenge. One possible solution is an online exhibit that not only highlights local history, but also links to an online collection. The librarians can develop the exhibit's content, while images that the library owns or has permission to use can be included in the online presentation. Unlike the library, its regional history and genealogy desks, or even the local historical society, the online exhibit can be "open" 24 hours a day.

This article documents the creation of the "Sonoma County Timeline" created by staff at the Sonoma State University Library (<http://library.sonoma.edu/regional/timeline.php>). I will also introduce the Massachusetts Institute of Technology's Semantic Interoperability of Metadata and Information in unLike Environments Exhibit (MIT's SIMILE Exhibit) software and demonstrate how easy it is to build an exhibit that features a timeline and a map component. Building the timeline is relatively simple and no programming skills are required; though familiarity with HTML and other basic webpage design practices are helpful.

### **"Sonoma County Timeline" Project**

The "Sonoma County Timeline" project (<http://library.sonoma.edu/regional/timeline.php>) was inspired by a friend's Master's thesis defense. His presentation on archaeological research made me realize the value of providing information in historical context rather than as a static description. After his presentation, I began researching various software packages that I could use to develop a dynamic timeline tool. Eventually I stumbled upon SIMILE Exhibit, created by the Massachusetts Institute of Technology (MIT). The advantage that SIMILE Exhibit had over other products I researched was that it was open source and easy to learn. Also, not only could it be used to produce a timeline, but it could present data in a Google Map or tabular display.

Funding for the timeline project was received from the university's Office of Research and Sponsored Programs near the end of 2010. The project captures the rich history of Sonoma County through text, images, and geography. The intended audience is county residents, especially K-12 students. What better way to learn about the county's history than through a rich, interactive website that allows for personal exploration via the Web? The other purpose of this project is to highlight images and content in the University Library's Northbay Regional and Special Collections unit. With our proposed timeline we would not only be able to educate the community on local history topics, but also extend

the Library and its collection beyond the walls of the campus. The “Sonoma County Timeline” went live in September 2011.

After receiving the funding, the first step was to organize and create a list of possible history points to include in the timeline. I put together a team of three librarians to come up with a list of the most important dates in Sonoma County history, referred to as data points. The scope of the project, to visually represent Sonoma County history, was defined when the grant was written; we just needed to create and collate the data. Our initial brainstorming session consisted of three librarians sitting in a room throwing out historical events that happened within the boundaries of Sonoma County, California. We immediately saw that very well known historical events and people such as the Bear Flag Rebellion, Jack London, or the filming of Alfred Hitchcock’s “The Birds” would stand out and be recognizable by students of history and popular culture. Items like the building of Warm Springs Dam or the life of Agoston Haraszthy (the Father of California viticulture) might not be as well known beyond the region, but still were important to the history of the county.

The librarians then met periodically to review various events or people in Sonoma County history that might be appropriate additions to the timeline. If we felt the event or person was very important, we would add it to a Google Document file that was shared by all five members of the team (three librarians and two master’s level student researchers). Each student on the team would select one data point (i.e., location, event, or person) from the Google Document file and would then email his or her selection to the rest of the group. Next, the student would conduct the necessary research on his or her chosen data point, add relevant hyperlinks to images or regional resources, and write an abstract that described the place, event, or person. One of the librarians would then review the abstract and edit it down to fit in the space allotted on the website. When this was complete and the main image for the history point was decided upon, another librarian would determine the geographic location for the data point and enter all metadata into a Google Spreadsheet. The Google Spreadsheet would be used to automatically populate the timeline.

What I learned as we went forward was that history is not an objective business. When creating descriptions and compiling any data about an historical event, there is always the possibility that people may see the same event in a different light. One area of concern that came up was around the representation of the Native American groups in the county. The library’s Special Collections department email received inquiries into the geographic representation of the first people who lived in and still live in the county. Archaeological evidence has demonstrated human presence in Sonoma County for over 4,000 years (Lightfoot, 1993). Challenges came up as to how to represent their presence since the timeline really was focused on one-time events (e.g., 1906 Earthquake) or specific individuals (e.g., Jack London). Events like an earthquake happen over a short period of time and individuals have a clear start and end date with regards to the timeline. Representing a culture that has been in the region since before Europeans arrived on the scene is more challenging. I consulted an Anthropology professor on campus and he suggested we highlight the date of tribal recognition by the U.S. government for each indigenous culture. Additionally, we decided to depict each group’s geographic

presence based on the location of recognized land. In the abstract, we also made sure to describe their continued presence in the county.

## **MIT's SIMILE Exhibit**

The "Sonoma County Timeline" was created using Exhibit, an open-source widget built as part of MIT's SIMILE Project. The SIMILE Project is a joint project between the MIT Libraries and the MIT Computer Science and Artificial Intelligence Laboratory. Exhibit takes advantage of an Application Programming Interface (API) provided by MIT. The program allows the user to create large visualization projects without writing a single line of programming language code; though some HTML tags and tags specific to the software do need to be altered.

## **Files and Templates**

This article will walk you through the steps needed to build a sample timeline project using data from the State Quarter Program. The U.S. State Quarter Program was a multi-year project in which each of the 50 states submitted a design that best represented their particular state. The designs were then printed on quarters issued by the U.S. Mint (United States Mint, 2008). I have created a sample set of files that I will refer to throughout this section. The corresponding files can be downloaded at <http://www.libraryinnovation.org/rt/suppFiles/195/0>.

To create a functioning timeline, you will need to build two pages: one HTML page that is essentially the webpage framework and the other a data file that contains the data points that drive the visualization. The HTML page connects, via the Internet, to the MIT server. The data is processed with the instructions you put in the HTML file. This produces a full-blown, interactive webpage. As you add more data to the data file, the HTML page will grow and be populated with the data. Not only does the API process the data, it also has built-in functionality that allows for various output formats such as a tiled format, horizontal timeline, or mapping component that utilizes Google Maps.

As mentioned above, only two files are required for an Exhibit project. The first file is an HTML file, which is strictly a structural document. It contains no data, but rather creates the structure of the final project. Inside this file are the following items:

- Connection string to the MIT APIs
- Style formatting in the form of CSS
- Instructions for formatting data from the data file
- Link to the data file

The other file, the data file, contains the data that will populate the visualization. Data can include:

- Images
- Locations
- URL (external files or websites)
- Names

- Place names
- Birth and death dates
- Descriptive text

Essentially, you determine how detailed the data file is. The key is that the file is well-formed with the correct punctuation and in the correct format. If there is an error, your project may not work.

## **Exhibit Components**

While no programming knowledge is required to use the Exhibit software, there are some components that are unique to the program. These three components are called views, lenses, and facets. By understanding how these three components and their properties work, you can better tailor your project and make it more enjoyable to use.

Views are used to explore an entire collection. For instance, the accompanying data file (quarters.js) represents one collection containing 50 state quarters. Altering the view properties will affect how these 50 quarters are presented. We will use the view functionality to display the data in three formats: tiled, timeline, and map. Information on additional formats is available through the Exhibit documentation site ([http://simile-widgets.org/wiki/Main\\_Page](http://simile-widgets.org/wiki/Main_Page)).

Lenses allow you to alter or manipulate the presentation of an individual item. In our state quarter example, working with the various properties that comprise the lens will alter the presentation of an individual quarter, but not the entire collection.

A facet is a single unique characteristic. In the State Quarter example, a facet could be the year a quarter was minted, or the year a state was ratified and entered the Union. Facets can be used to describe the unique characteristics of each quarter, even down to the design.

As we build the timeline, keep in mind that a view provides a means to look at the entire collection, while a lens looks at the presentation of the individual item. Meanwhile, facets allow the user to browse a collection's contents.

## **Building the Timeline**

One of the great benefits of working with SIMILE Exhibit is that no programming skills are required, aside from a basic understanding of the Web and HTML. The heavy lifting has been built into the API. However, you do need to keep a close eye when creating the data file, which requires some precise punctuation. If anything is absent, your project will not work. In this section, I will explain step-by-step how to create an Exhibit project. As an example, I have created a data file that covers the U.S. Mint's State Quarter Program. Most of the code for this example is in the body of the article. You can choose to use the corresponding files, which can be downloaded at <http://www.libraryinnovation.org/rt/suppFiles/195/0>, or follow along and create the HTML file from scratch. The zip folder contains four files:

1. Basic HTML file that contains only the basic structure of the site.
2. Completed HTML file that has the finished code for comparison purposes.
3. Data file with data for the 50 state quarters.
4. Readme file with additional instructions.

For convenience, it is best to download and use the data file (quarters.js) that is in the zip file referenced above as it already contains the data for the 50 State quarters.

For the purpose of this tutorial, you do not need to upload any files to a server. This entire tutorial can be done on your desktop. To complete the ten-step tutorial, you will need a browser, a text editor, and a connection to the World Wide Web.

## 1. HTML File

Unzip the file listed above and open the quarters.html file in your text editor to view the HTML source code. Or, if you would like to create the HTML file from scratch, type the HTML code below into your text editor and save it as quarters.html. Be sure that the file is in the same directory folder as the data file.

```
<html>
  <head>
    <title>Title of Project Here</title>

    <!-- - link to data source- -->
    <link href="quarters.js" type="application/json"
          rel="exhibit/data" />

    <!-- - link to MIT Simile Exhibit API - -->
    <script src=http://api.simile-
            widgets.org/exhibit/2.2.0/exhibit-api.js
            type="text/javascript"></script>

    <!-- - styles - -->
    <style type="text/css">
      body {width:900px}
      div#view {width:600px;}
      div#facet {width:200px;float:right;}
    </style>

  </head>
  <body>
    <h1>Name of Exhibit Project</h1>

    <!-- - facet - -->
    <div id="facet">

      </div>
```

```

    <!-- - view - ->
        <div id="view">

            <!-- - tile - ->

            <!-- - timeline - ->

            <!-- - map - ->

        </div>

    <!-- - lens - ->

</body>
</html>

```

After saving the file as quarters.html, open it in the browser of your choice. Nothing should appear except the `<h1>` text, "Name of Exhibit Project." Keep your browser open for the duration of this tutorial. We will be adding to the HTML and will see progress shortly.

## 2. Data File (JS file)

The data file contains the data points for your project. Review the quarters.js file in your text editor or look at the code below to see how the data is structured. Take note of all the different types of punctuation and brackets used, especially the commas at the end of each data row. If there is no comma, the program will not know to continue looking for information. The only time there is no comma is after the final item.

The example below shows what a data file could look like. Beyond correct structure and punctuation and the naming of the key element "label," there are no rules on how you name items. You can be creative with your names and add as many fields as you feel necessary, just be sure to use proper punctuation.

```

{
  "items" : [
    {
      label: "California",
      type: "state",
      capital: "Sacramento, CA",
      stateLatLng: "38.5815719,-121.4943996",
      ratified: "1850",
      stateNumber: "31",
      minted: "2004",
      stateURL: "http://ca.gov/",
    }
  ]
}

```

```

    mintURL:
      "http://www.usmint.gov/images/mint_programs/50sq_program/states/CA_Designs.gif"
    }
  ]
}

```

For your convenience, I have created a data file that already has data for the 50 State Quarter program. Download the sample file (quarters.js) and open it in the text editor of your choice. An alternate method for storing the data would be in a Google Spreadsheet. Instructions on how to create and use a Google Spreadsheet file for this project can be found on the SIMILE project site (<http://simile-widgets.org/w/index.php?title=Exhibit&oldid=1237>).

### 3. Creating a Tiled View

Our next step is to create the output. At present, we have no way to actually see our data. In order to make the data appear on the page, we need to add views. The properties and their actions for the various views, lenses, and facets are well documented at the SIMILE Exhibit wiki ([http://simile-widgets.org/wiki/Reference\\_Documentation\\_for\\_Exhibit](http://simile-widgets.org/wiki/Reference_Documentation_for_Exhibit)).

Now let's return to the HTML file you created or opened in your text editor. Add the code below under the `<!--tile-->` note.

```

<div ex:role="view">

</div>

```

Save your updated HTML file and open it in your browser. What we did was add the most basic view property to our file, the tile view. It simply calls for all the data from the data file to be output in the HTML file.

### 4. Creating a Lens

Now that we can see our data, we want to make it more attractive. This is where we add a lens to stylize each item. As mentioned above, a lens is used to look at an individual item in a collection. Copy the code below and paste it below the `<!--lens-->` note. As before, save the file and open it in your browser.

```

<div ex:role="lens" style="display: none;">
  <table cellpadding="10" width="100%">
    <tr>
      <td>

          <div><img ex:src-content=".mintURL" /></div>

```



```

        <div><strong>State:</strong><span
        ex:content=".label"></span></div>

        <div><strong>State Number:</strong> <span
        ex:content=".stateNumber"></span></div>

        <div><strong>Ratified:</strong> <span
        ex:content=".ratified"></span></div>

        <div><strong>Minted:</strong> <span
        ex:content=".minted"></span></div>

        <div><strong>Link:</strong> <a ex:href-
        content=".stateURL"><span
        ex:content=".stateURL"></span></a></div>

        </td>
    </tr>
</table>
</div>

```

As you can see from the code above, the lens contains more instructions on which information to display from the data file and how the data should be formatted. The lens coding utilizes a `<div>` tag wrapped around the rest of the code. Inside this `<div>` tag you will see two additional instructions: `ex:role="lens"` and `style="display:none;"`. The first instruction tells us that this is a lens as opposed to a view or a facet. The next part is a style that we will use when we integrate a timeline and a map. It simply tells the lens not to display upon loading.

An HTML table is nested inside each `<div>` tag providing the basic structure for the output of each item. Inside the table are various `<div>` elements that include more instructions on which data to present.

The first line inside the table reads:

```
<div><img ex:src-content=".mintURL" /></div>
```

This presents an image, in this case the image of a state quarter. Note the coding that refers to the image location (i.e. `mintURL`) is inside quotation marks and has a period before the variable name.

The second line reads:

```
<div><strong>State:</strong>
<span ex:content=".label"></span></div>
```

With this block of code, the word “State” will appear in bold followed by the “label” or unique identifier for this item. Each line after this displays another piece of data from the item.

Based on the HTML we have included so far, the State Quarter data should now appear in your browser in a format similar to Figure 1.

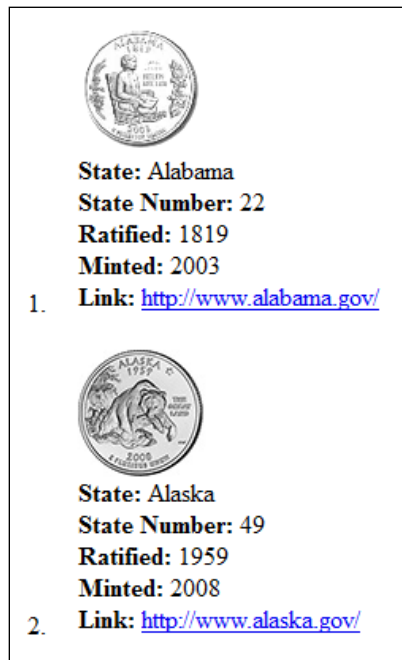


Figure 1. Example of creating a lens.

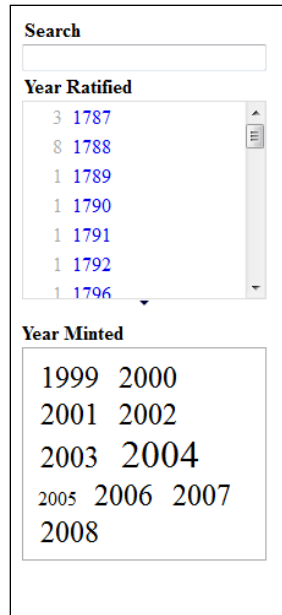
## 5. Filtering

Rarely do we want to display all items from a dataset at once. By adding characteristics or facets to our data, we can allow the user to refine the results. Add the below code to the HTML file under where you see `<div id="facet">`. Save the file and open in your browser.

```
<div ex:role="facet" ex:expression=".ratified"
ex:facetLabel="Year Ratified"></div>
```

```
<div ex:role="facet" ex:facetClass="Cloud"
ex:expression=".minted" ex:facetLabel="Year Minted"></div>
```

What you should see now are two boxes stacked on top of each other on the right side of your screen (see Figure 2). By clicking on a year in the first box, you can filter out all items that were not ratified in that given year. For example, by clicking on “1788” from the “Year Ratified” facet and then clicking on “2000” from the “Year Minted” facet, you can narrow down the 50 state quarters to five quarters whose statehoods were ratified in the year 1788 and state quarters were minted in the year 2000.



**Figure 2.** Filtering.

## 6. Search

Not all users like to browse so it is important to add a search function as well. Add the below code just under where you see `<!--facet-->` `<div id="facet">`. This code should go above the code you inserted in the previous step.

```
<div ex:role="facet" ex:facetClass="TextSearch"
ex:facetLabel="Search"></div>
```

What results is the ability to do a search on the collection. We can now enter a search term and have the results returned. If we enter the year 1787, three coins are returned. We have now created a semi-robust interface, but we still need to build the timeline and add some additional functionality.

## 7. Timeline

Adding timeline functionality allows us to see the data spread out in a horizontal timeline. In order to add a timeline view, we must add two pieces of code. In the `<head>` section, near the top of the HTML file, we need to add another API call. The code below can be added under the original `<script>` tag. (Note: It is important that the code you are inserting remains in a single continuous line that does not wrap onto multiple lines.)

```
<script src="http://api.simile-
widgets.org/exhibit/2.2.0/extensions/time/time-
extension.js" type="text/javascript"></script>
```

Once the API link is entered, copy the below code and enter it under the `<!--timeline-->` note. Save the file and open it in your browser.

```

<div ex:role="view"
    ex:viewClass="Timeline"
    ex:start=".minted"
    ex:eventLabel=".label">
</div>

```

Depending on your browser size and screen settings, you may need to scroll to see the new timeline as it will appear near the bottom of the page. Using your mouse, you can drag the timeline horizontally to reveal additional points. You will also find various points marked on the timeline with descriptive text and a circle. By clicking on each circle, you can see the lens presentation of each item (see Figure 3).



**Figure 3.** Lens presentation.

## 8. Map

We can now add a map since we have geographic data in our data file. In the sample data file, you will find specific references to the latitude and longitude coordinates of the state capitals. To add geospatial functionality, we must add two more pieces of code.

You will need to add another API call in the `<head>` section at the top of the HTML file, but first the map API requires a key. The key is an alphanumeric series that acts as a unique identifier to your map. You can get a key from Google for free through the Google Developer's page ([https://developers.google.com/maps/documentation/javascript/tutorial#api\\_key](https://developers.google.com/maps/documentation/javascript/tutorial#api_key)). When selecting a Google Maps API version, I chose v2 for this example; newer versions have since been released.

Next, add the code below to your HTML file under the `<script>` tag. Remember, at this point we have already added a separate line of code for the timeline. This new

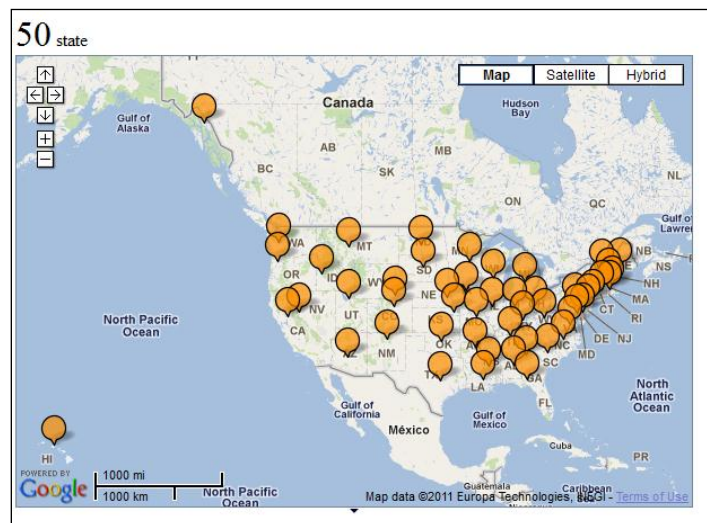
line of code should go under the timeline API code. Add your key after `gmapkey=`, but before the last quotation mark, replacing the text “(Your Google Map Key).”

```
<script
src="http://static.simile.mit.edu/exhibit/extensions-
2.0/map/map-extension.js?gmapkey=(Your Google Map Key)"
type="text/javascript"></script>
```

Copy the below code under the `<!--map-->` note. Save the file and open it in your browser.

```
<div ex:role="view"
ex:viewClass="Map"
ex:center="43,-111"
ex:zoom="3"
ex:latlng=".stateLatLng">
</div>
```

The above code tells the API to process the data using a Google map and to insert pins on geographic points. We can tell the page where to center the map by using latitude and longitude coordinates and manipulating the level of zoom. For this example, the center is somewhere in Utah and the zoom focuses strictly on the United States (see Figure 4).



**Figure 4.** Using Google map to highlight geographic points.

## 9. Tabs

We now have three different outputs of the same information: an item record, a timeline, and a map indicating geographic location for our data. Right now, the information is all stacked one on top of the other. To make it more accessible, we can create tabs that allow the user to access the specific output format they desire.

In the body portion of the HTML file, we find the following tag: `<div id="view">`. Replace the `<div id="view">` with `<div id="view" ex:role="viewPanel">`. Save the file and open it in your browser.

This creates a tab for the various outputs.

Now that you have created a functioning timeline using the sample dataset, I recommend creating your own project. For future projects, you will need to setup a folder on a server in order to make your files and project accessible to the public. It is good practice to keep all files in a single folder for easy access and to ensure ease of creating reference links to the data file and any images you may include.

## **Project Management**

As demonstrated above, the Exhibit software is easy to work with, but as with any project, it is important to follow a basic project management framework.

Creating an Exhibit is a multi-stage project.

### **Stage 1: Define the Scope**

When designing a timeline project, a best practice is to outline the scope of the project. By defining the boundaries of the project, you can focus on the core information that will make up the main portion of the timeline with minimal distractions. Questions to consider:

- What is the timeline project about?
- What is the timeline project *not* about?
- Does the project cover a specific time frame or is it infinite?

### **Stage 2: Collect Data**

Now that you have defined the scope, it is time to collect the data. In the world of your timeline, content is king. Questions to consider:

- What sorts of data (text, images, documents) best represent the scope of the project?
- Does your library own the rights to publish the images in an online format?

### **Stage 3: Create Exhibit User Interface**

The Exhibit project allows for various interface components. We completed an easy nine-step process to create our first project. Questions to consider:

- What metadata do you want to display?
- Can the metadata be sorted by facet?
- Do you want to show the data as an unordered, tiled list? A horizontal timeline? A map? A combination of the three?

#### Stage 4: Promote

Connecting with a historical society or a Friends of the Library group can be an effective way to advertise your project. Contact the library's marketing group or, if you are at a university or college, make sure there is an article in the student paper or in the local press. After all, this project is more than just an internal project – it is a connection to your larger community. Questions to consider:

- What is the most effective way to promote your project? Conference poster session? Social media streams? Print? A big party?

#### Stage 5: Continue to Add to Timeline

Depending on the project, you may want to continue adding to the data file. The promotion phase might have garnered interest from potential volunteers. This phase is dependent on the scope of your project. If it is an open-ended regional history project, now is the time for a Phase 2 where additional history points can be added.

### Possible Uses

Creating an Exhibit project is more than just displaying “cool” functionality – it is a marketing project that every library can utilize to expand its online visibility. One of the constant dilemmas faced when creating a Web presence for any library is how to present a pool of relevant resources in a user-friendly manner. Library staff knows what a library's collection holds, but patrons only know as much as the website allows them to find. An online exhibit is an effective way to get the word out about your library's rich collections.

While Exhibit works well for small projects like tracking state quarters, a large-scale project about local community history is also possible with Exhibit. Integrating your collections and linking to them via the Exhibit format would be a powerful extension of your physical library. By creating local history projects using the Exhibit software, libraries have the ability to partner with local school districts and historical societies to use the projects as teaching tools. For instance, Sonoma State University Library takes part in the annual History Day project with local schools. Having students create a similar timeline on historical events or people relevant to their study would be a good tie-in with the library and future university students. Another avenue to perform outreach would be with a local university's School of Education. Again, teachers could use this to demonstrate history to their students, as well as introduce the idea of research in a library setting. The timeline format is a great tool to showcase library resources.

As I have become increasingly familiar with the Exhibit software, I have seen varied uses for it. During the 2011 Japanese earthquake and tsunami the *Los Angeles Times* website featured an interactive map that used Exhibit to effectively illustrate the earthquake's devastation (Schwencke & Lauder, 2011). This example illustrates how Exhibit could be used to create timeline projects for other historical or time-related events. For instance, one could create a timeline for the 1906 San Francisco Earthquake. Another great use would be to illustrate a voyage of exploration such as the Lewis and Clark ex-

pedition. Not only could you mark historical events based on diary entries, you could track where the Corps of Discovery was physically on the continent as they journeyed west.

The SIMILE Exhibit framework is truly flexible in working with data from various formats. In this example, we looked at referencing data stored in an external javascript file. Exhibit can also reference data stored in XML, Google Spreadsheet, Excel spreadsheet, and JSONP formats, to name a few. Other possibilities include leveraging EAD files from archival finding aids. EAD is an XML-based standard used for coding finding aids. Leveraging the data in an EAD file could turn a finding aid into a working timeline that complements the collection.

## **Feedback and Project Status**

The feedback on the “Sonoma County Timeline” project received thus far has been mostly positive. Website usage often spiked on days when the timeline was the focus of the library’s homepage slideshow, or when it was mentioned on our Twitter or Facebook feeds. At a recent showcase of campus-wide research, campus faculty members and university administration personnel commented on how a tool like this timeline gives the university public exposure beyond the campus footprint. This is exactly the purpose of the project – to extend the library beyond the university campus. As of this writing the marketing arm of the university is in the process of making a push with the local media to publicize the effort.

Currently, the project team is in the process of adding items to the Google Spreadsheet. The number of data points is growing with 25 data points as of spring 2012. We are now in the process of designing the supporting pages that will be linked from each data point entry. When this next phase of the project is complete, the viewer will be able to see a longer description of each history point, see where the event or person lived in Sonoma County, and find additional local and regional resources for further study. Sonoma State University Library collections will be highlighted, but the intention is to expand the resource list to include a variety of resources of interest (e.g., books, websites, and ephemera).

## **Conclusion**

A tool like Exhibit helps extend the reach of the library beyond its walls with minimal technical knowledge required. Libraries are part of their communities and contributors to local culture. They offer a variety of resources and services, and with the help of Exhibit they can also offer online methods of learning about local history in an attractive, user-friendly, electronic medium. An Exhibit timeline can add to the library’s value by helping the library contribute to the local community, and demonstrate that libraries have evolved beyond the traditional brick and mortar institution – beyond just serving as a storehouse for books and magazines. Libraries are places where content can be created to serve the local community. Having projects such as the “Sonoma County Timeline” online allows more patrons to access the same information on their own time, with no hours attached. From here, the sky is the limit as to where you can take Exhibit.



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## Additional Resources

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