Appendix 4.2: Use Case Scenario #2 -- University Faculty Using IU Scholar's Box To Create Reusable Teaching Materials With Images

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Players and Tools

- Professor Chris Jones (History/Ethnic Studies/Sociologist)
- IU Scholar's Box Tool
- UC California Digital Library (collections from multiple UC campus's and other collections)

Assumptions (Note – we have intentionally included a large number of sometimes broad assumptions to push forward discussion.)

Tool Developer Point of View

1. The developer assumes that the Scholar's Box tool is not part of a digital repository or Course Management System (CMS) per se, rather it bridges/interoperates with them. The SB can be designed to be loosely or closely coupled digital library and/or CMS.
2. The Scholar's Box (SB) can be a client and/or web-based tool. In this use case, the SB is a client based tool that can "save" and "publish" to a learning object repository for reuse by others.
3. The Scholar's Box can interoperate with a number of common productivity, research, and social software applications, e.g., Powerpoint, EndNote, weblogs.
4. The developer assumes that users want a tool that's easy to use and has a clean design, especially in relation to authoring of learning materials. (It is also assumed that more complex authoring of collections and learning objects does not work very well as a web application.)
5. The developer assumes that repositories deliver content/metadata in a number of standard XML formats.
6. The developer assumes that there are multiple types of users - from the general public to university faculty and staff.
7. The developer assumes that individual users will have multiple collections and that the Scholar's Box needs to support a user account structure.

8. The developer assumes that end users will want to share part or all of their collections and teaching and learning objects with others inside and outside their institutions, and that users will want ability to specify what materials can be shared.
9. The developer assumes that personal collections as well as learning objects are important products to be created and shared, and that in each case there is real value in making available these products in XML formats that can be easily disaggregated and re-aggregated.
10. The developer assumes that almost all teachers and learners carry out some form of personal collecting, organizing, annotating, interpreting, presenting, and sharing ("Scholarly Primitives") in their work with images (as well as other object types), and that tools should be developed to make it much easier to do this with digital cultural and scientific objects.

End User (i.e. Professor) Point of View

1. The user assumes that the Scholar's Box can interoperate with local CMS/LMS(s).
2. The user assumes that the Scholar's Box is connected to multiple digital libraries/repositories, such as the California Digital Library.
3. The user assumes that he or she is able to export his or her collection to a learning object repository and publish it, for example, in commonly used and interpreted format, such as an IMS content package.
4. The user assumes that he or she can access all the digital content that he or she normally does in the library.
5. The user assumes that he or she can see that objects are specified as publicly accessible or private (have restricted use).
6. The user assumes that he or she can decide what level of access (permissions) to give to his or her collections and learning objects.
7. The user assumes that he or she can incorporate his or her own material from his or her personal computer.
8. The user assumes that desktop client tools can integrate with the Scholar's Box.

Content Repository Point of View

1. The repository assumes that there are multiple types of users - from the general public to university faculty and staff.
2. Repositories support industry and service-level standards.
3. The repository assumes that services that connect to it will not interfere with the repositories operations.
4. The repository assumes that services that connect to it will maintain security and authentication standards.
5. Some campus repository service kindly agrees to host learning objects and other related course materials so that others can access for them on-gong use/re-use.

Description

Professor Jones wants a collection of images for lecture she is giving on Angel Island and its essential role in early Californian immigration. She enters "angel island immigration" into the search box and chooses "CDL" from the checklist of repositories available through the Scholar's Box. She could have searched more repositories, but she knew that the CDL provides access to some of the richest and most relevant primary source and other materials related to California's immigrant history. The search returns a rich set of images and some related textual and bibliographic materials (this use case focuses on images, but it assumed that even users primarily concerned with images will want to be able to also easily gather other related materials/object types).

As Professor Jones gathers images for her Angel Island lecture, she encounters interesting material that she would like to incorporate into other future lectures. She finds herself following threads that aren't necessarily directly related to her immediate teaching task, but interesting nonetheless; she creates other "collections" for these other objects and uses. Professor Jones also notices images that may relate to her current research and drags those images into her preliminary research collection and writes a sentence or two about her initial thoughts on the items in the "Notes" field. She eventually returns to the "collection" containing photos for her lecture and starts to annotate them. After she is finished, she will have the Scholar's Box automatically create a slideshow presentation using Powerpoint and handouts of the images and her annotations for her upcoming lecture. She will also make available the set of images and notes for her class in the CMS she is using. Finally, she will make available this collection of images for other colleagues at other academic institutions to use and modify.

Transactions

1. Professor Jones opens up the Scholar's Box (SB) client on her laptop.

2. After reviewing the collections she has already saved in other uses of the SB, Professor Jones creates a new collection by choosing "New Collection" from the File menu.

3. Professor Jones goes to the search box and begins entering search terms. The results list shows thumbnails of the images found as well as some metadata, such as title and source. She drags the thumbnail images that she wants to use from the search results list to her collection window. The image along with all of its metadata is shown in the collection window.

4. After collecting all the images she wants, Professor Jones annotates selected images in the collection by entering the desired text into a text box labeled "Annotations". (Each image has its own "Annotations" box.) Her annotations automatically become part of the metadata for their respective images in her Angel Island collection.

5. Professor Jones saves her collection as "Angel Island Lecture" by choosing "Save" from the file menu.

6. Professor Jones chooses "Create slideshow of collection" from a menu of services that can be applied to collections in the SB to create a slideshow presentation of her Angel Island collection. (The collection of images is exported by the SB into OpenOffice presentation tool and/or MS PowerPoint.)

7. Professor Jones reviews the results and fine tunes the layout of some of the slides by using the appropriate Powerpoint procedures.

8. Professor Jones returns to her collection in the Scholar's Box and chooses "Create handouts" from a menu or clicks "Create Handouts" button. Scholar's Box takes images and information from her collection and automatically creates handouts of the images in the collection.

9. Professor Jones then saves her Angel Island lecture collection to the local CMS she and her students use so that the students can access the full collection of objects for possible other uses via the SB and/or the CMS (note, the SB can save and export the collection as an IMS content pack so that IMS compliant tools/environments can integrate these materials).

10. Professor Jones then saves several of the collections she has created in an external learning/teaching object repository so that she can access these materials from other computers she uses (note, the SB can also save this collection as an METS object so that it can better interoperate with various digital repositories).

11. Professor Jones also decides that she wants to share one of these collections with colleagues of hers at other universities and teaching institutions. She is able in the campus LO/courseware repository to make collections available to the public via the web and/or create and specify groups who can have access to these materials.