

Internet Technician Report

On The Stevens County Crossroads on the Columbia Digital Archive

For November 2010

By Joseph Barreca

During this first month of activity on the project we have made significant progress in several areas. I will group them into four categories: Learning, Internal Organization, External Interactions, Hardware and Software. During the process I have concluded several take-away lessons in the form of criteria for the ideal system for this project. In the month to come, I intend to examine options for Digital Archive Management, storage and retrieval on Internet servers. This report discusses each of these areas.

1. **Learning:** Several hours were spent examining the 2010 Horizons Report – Museum Edition. This document was suggested reading from the Washington Museum Association. It was an introduction to new media that museums are incorporating in their exhibits and other online products. Additionally it provided links to ongoing discussions of these technologies at <http://delicious.com>. In building any storage and retrieval computer system, you need to look at the output you expect when designing the input and storage systems. This report suggested considering developments in

- Mobile technologies: Smart Phones, Iphone, Ipad etc.
- Social Media: FaceBook, Myspace etc.
- Location-Based Services which allow access by location and on location
- Augmented Reality which adds information from the past and future to a video image
- Gesture-Based Computing which allows user gestures to control programs and
- The Semantic Web which actively creates relations between online archives

Several of these technologies have significance in establishing criteria for the current project.

Tracy provided a link to a tutorial on digital images from Cornell University. Although the lessons were 6 years old, many of the same principles apply. The most significant change not mentioned in that material was the rise of Solid State Storage or Solid State Drives (SSD). Like huge thumb drives, these devices store data in a more secure format without mechanical parts.

We also reviewed a tutorial on copyright issues for museums. Museums enjoy a large number of “fair use” options and deal with older content. Nevertheless, there are many things museums can do to document information they accession from the outset to avoid problems later.

Sue Richart provided a link to a survey of how mobile technologies now dominate the use of Internet content. Most commercial sites lag behind in formatting their online material for easy mobile use. Several sample links showing good practices that will help in our project design.

2. **Internal Organization:** During the first week of activity I placed 20 files on my own website that contained attachments to the original grant application and other supporting information. Later in the month Scott Hirsch at Secure Webs donated a web address on one his Linux servers for software testing. There is a temporary home page now at the site: <http://173.225.89.68/>. At first we needed to log in as ftp administrators to see anything. This is a generous contribution worth \$137.70 per year. The team also developed spread sheets to standardize time reporting and established intervals of ½ month between payment cycles. We have also standardized the format for documenting donated time and begun contributing matching funds. There are still several issues on the table concerning the value of the office space and equipment we use, travel mileage and the value of contributions from the museums.
3. **External Interactions:** We have deliberately held back on public announcements and scheduling of education and recruitment meetings for this project while we iron out the exact procedures we will use in building the archive. We did meet with The Heritage Network at their regular November meeting to introduce our team and activities and get input on the process. They represent the main benefactors of and contributors to the project. Tracy also attended the PNW Womens’ History

Conference where she made important contacts especially with the State Digital Archives in Cheney. We also met with Mark Curtis director of Stevens County Information Services and Amanda McKeraghan director of the Stevens County Rural Library District. Both were very supportive of our efforts and we can expect more interaction with them as the project develops. I also fielded a call from Jamie Henneman, reporter for the Statesman Examiner. She is ready to do articles on our project and will mention it in the current edition of the paper. I advised her to concentrate on the Christmas fundraising activities of the local museums and hold off on the Preserve America archive until we have more work done.

4. **Hardware and Software:** Most of my activity has been devoted to examining the tools we have available for the project. A big boost came from The Heritage Network. They are letting us use equipment used for the Washington Rural Heritage Archive project in 2008 (<http://www.washingtonruralheritage.org/stevens/>) This equipment includes an Acer Laptop computer running Windows XP. Several crucial pieces of software used for scanning and image manipulation, a high-end Nikon D200 digital camera and photography stand, two external hard drives and travel bags for all of the hardware. Using links from The Heritage Network, I have loaded the premium edition of Museum Archive on the Acer laptop and inventoried the equipment. This gave me a learning experience in archiving and exporting archived data. We can use this software in primary inventories of the holdings of the local museums that don't have their own accessioning software and export the information in reports to help us evaluate which holdings are most critical for preservation with this grant. Additionally I have installed ProPhotoTools, a free application from Microsoft that allows us to build metadata into image files of all kinds. It will add categories that were not included by the original photo and scanning devices and it can apply information to many files at once, for instance identifying the source on a whole gallery of photos. I have begun examining Digital Archive Management software, much of which is available as open-source free downloads. I am also looking at online storage options in existing collections. Meanwhile Sue Richart is aligning Dublin Core metadata standards with the fields available for metadata embedded in images.
5. **Criteria:** Throughout this pilot phase of the project we have learned some take-away lessons that apply to this project. We can use these in evaluating our options for the next few weeks and I would like to enumerate them here. More may be added as time goes on and we might not be able to achieve all of these objectives in an ideal manor.
 - *Mobile Media is a new standard for accessing museum collections both within the museum buildings and in the field. Most of these systems use unique identifiers such as icons or bar codes to activate recorded audio and video files that interpret the objects for museum visitors. To the greatest extent possible we should capture audio and video recordings of curators talking about their collections. We can use them both in evaluating the material to be archived and interpreting it as people access the information. Handheld devices work better with media files than text and an overwhelming majority of users prefer interpreted access to museum materials.*
 - *Interactive Websites create a social network of archive users. Small groups with a common interest or family ties are a dominant force in content development for online communities even if the communities themselves are large. We should look for software that allows users to comment on and contribute to these collections.*
 - *Embedded Metadata is allows images to be obtained from the Internet without losing their source, content, location and copyright data. This technology protects the information itself as well as the users. Ironically, most Digital Archive Management Systems use external databases to catalog and search their material without any use of embedded data. The ideal system would extract embedded metadata for internal use. It is difficult to imagine a system without an*

internal database, perhaps one run entirely by a search engine such as Google. These databases facilitate searches and reports. They also drive xml-based web page interfaces to the material. A system that resolves this dichotomy would be a huge asset to this project.

- *User Networks add a great deal of value to any software or platform we select. Looking at the size of the user community, their main interests, the longevity of the system and the activity on user forums will be a big factor in picking the best solution.*
- *Location Based Data is another critical component of the ideal system. Location data can be easily embedded in images. Many of these systems allow this information to be displayed on maps and interactive maps to be used in accessing the information. This criterion relates directly to mobile devices. It is also especially important to rural museums where the stories tied to specific locations can greatly enhance and encourage tourist activity, which is one of the main goals of Preserve America and this project in particular.*
- *Metadata Display is another critical issue. We want a system that displays pertinent metadata alongside an image so that the researcher will know immediately the context of the image and information.*
- *Other Criteria including cost, ease of use, ease of setup and training, speed, flexibility of output and long term sustainability will also be factors.*

In the coming month putting a system in place that meets these criteria will be our main goal. Providing training and finding community support for the system will be much more successful if we can make history a community building activity that provides fun learning activities across a broad spectrum of the population.