

Milestones

- *Advisory Board/Alpha Implementers Pre-Conference Meeting at NJEDge.Net Conference*

The Advisory Board met again at a special meeting of all the NJVid Alpha Implementers and Advisory Board members at the annual NJEDge conference on November 19th, 2008 (<http://www.njedg.net/conference2008/special/>).

The combined Alpha Implementers and Advisory Board meeting was a three-hour session with presentations by Sandra Miller, NJVid PI; Mary Mallery, Chair, Intellectual Property and Copyright Workgroup; Mary Beth Weber, Chair, Metadata Workgroup; Isaiah Beard, Member, DV Production & Upload Training Workgroup; Grace Agnew, Chair, Authentication and Authorization Workgroup; Jane Hutchison, Member, Commercial Video Workgroup; and Judith Thomas, Member, NJVid Advisory Board. They presented the newly launched NJVid Commons collection, gave workgroup updates, and discussed what VIVA, the University of Virginia's Virtual Library Consortium, is doing to administer access to 500 hours of PBS streaming video. VIVA represents a counterpart to NJVid's commercial video collection, and, like NJVid, also uses Shibboleth to authenticate end-users, so it was an excellent sharing experience. Twenty-four members attended.

- *NJEDge.Net Conference – Commons Launch*

Sandra Miller and Grace Agnew launched the Commons at a Plenary Session at the NJEDge.Net Conference 2008. It was very well received by the 220 attendees and after the launch, several non-Alpha Implementer institutions inquired about participating. These included Fairleigh Dickinson University, New Jersey Network, NJIT, and Newark Public Schools. The NJVid Project Team decided to work with all of these institutions, now, rather than wait until the end of the grant, as we are trying to increase the number of videos available through the Commons. The launch included just 33 videos, and we would like to have around 200 by the end of the grant. We are currently working with these institutions and have amassed close to 50 videos thus far.

This session was followed by George Laskaris, Executive Director of NJEDge.Net, who spoke about "The Roadmap for the Future" in which NJVid and Shibboleth authentication and authorization will enable all of New Jersey's institutions to share content. In addition, at the NJCIO Forum, Grace Agnew spoke on the library infrastructure of NJVid, which further sparked ambition by New Jersey higher education CIOs to develop institutional repositories built upon NJVid's infrastructure. Although institutional repositories for other digital materials are not within the scope of the grant, building upon NJVid's infrastructure is an important element of sustainability.

- *Annotation Tool Planning Group*

On March 5th, 2009, Alpha Implementers were invited to a meeting in which the Annotation Tool was explained to an audience of likely users and given visual context (the prototype was not yet ready). We wanted input from potential users as to what they wanted to see from this tool. This feature is highly desired and will add great value to NJVid's services to its patrons. The Alpha Implementers were asked to identify scenarios of usage by their faculty and students.

Chad Mills and Shaun Ellis conducted the session. They are the main programmers creating the Annotation Tool. Annotation tool discussion points included capability, control, searching and attribution. We decided that the Annotation tool will enable users to create two types of content in general: Annotations, which are comprised of clips/segments of a video along with a supplied title and note, and Playlists, which are comprised of a series of annotations along with a supplied title and note.

Control over annotations and playlists will have two states: Private and Public. Private annotations and playlists can be repeatedly edited by the creator. These will only be viewable by the creator in the tool and not viewable by searching the repository. Once made public to share with either the creator's local community or the Commons, the creator will still have a 24 hour grace period to make any revisions/changes. After that 24 hour period, the creator will be unable to make revisions/changes. When content is marked "public", the creator will be presented with a "creative commons" license, into which he/she will need to opt-in, in order to complete the process. The annotation or playlist will be discoverable and viewable by searching the repository. Reuse of publicly accessible annotations and playlists by other users in the annotation tool will be possible.

The system will index keywords (title and note) in annotations and playlists and therefore supplement each video's traditional descriptive metadata. This will increase each video's search index. Metadata in annotations and playlists marked "private" will be indexed relative to the corresponding video but will not be discoverable or viewable by NJVid Commons' users.

If a creator wishes to delete an annotation or playlist, a request will need to be sent to NJEDge.Net with a justification. (Please note that this is similar to NJVid's approach to requesting removal of a video). If approved, the annotation or playlist metadata will be deleted, but the metadata record's persistent URL will still resolve for users. Users will be presented with a message stating that the annotation or playlist was deleted by the creator; thus, they should contact the creator for additional information. This last step acts as a safeguard against the possibility that an annotation or playlist has been cited in a work.

The brainstorming that occurred at this meeting was exciting and very helpful in guiding the programmers as they develop code for the tool. The NJVid Annotation Tool must be compatible with all types of NJVid video collections: Commons videos, Commercial Videos and Learning-on-

Demand videos. Therefore Rutgers may need to design the tool to work with both streaming QuickTime and progressively downloaded Flash file formats. We are still considering integrating streaming Flash video for presentation, and NJEDge.Net may ultimately need to purchase a streaming Flash server if the Project Team decides to move in this direction.

- *Films Media Group (FMG) Test*

The first meeting with commercial video vendor FMG took place on January 13th, 2009. FMG has 500 titles. We decided at this meeting to conduct an FMG test with 20 titles using MPEG-2 as the container file format that FMG should deliver to Rutgers for conversion to presentation format (MOV and FLV). Jane Hutchison, Chair of the VALE Digital Media committee, picked 20 of the most commonly licensed titles by the Alpha Implementers that are going to participate in the FMG test. There are eight participating institutions: County College of Morris, Fairleigh Dickinson University, Middlesex County College, Passaic County Community College, Ramapo College, Rowan University, Rutgers University, and William Paterson University.

FMG has sent preliminary metadata for the test titles in .csv format to Tom Nemeth, NJVid Project Coordinator, who will map the FMG metadata into the WMS (Workflow Management System) using a batch import procedure. The batch import utility is in the process of being created by Ron Jantz. In addition, FMG sent Isaiah Beard the 20 titles on a hard drive, and these are currently almost all transcoded. These will be migrated to the NJEDge.Net NJVid system when ready, along with the Commons files that Rutgers currently maintains for NJVid.

Another meeting was held on February 3rd, 2009, in which partnership guidelines were laid out. FMG will allow us to use their pre-produced learning objects, but we cannot edit them. However, FMG will allow our users to add additional notes to their learning objects. FMG provided their own thumbnails as they were concerned that any thumbnails we would generate might not optimally characterize their content from their perspective. FMG does not want users to disrupt existing learning objects' metadata, but they will allow NJVid users to append their own metadata to FMG's pre-defined learning objects' metadata.

This meeting clarified that, in developing our Annotation Tool, we will need to support "importing" external, non-editable learning objects from vendors. Development of playlists and use of the Annotation Tool is something that needs to be addressed in the Master Agreement between each Commercial Video Vendor and NJVid. The dilemmas that came out of this meeting did not necessarily always pertain to technical development, but to whether or not content producers and distributors will allow certain uses of their content by NJVid's end-users. These limitations of use need to be negotiated with each producer, distributor, and licensor, and then these limitations need to be conveyed to the end-user in a straight-forward and intuitive manner. Sandra Miller, Jane Hutchison and Tom Nemeth are currently negotiating with FMG over the terms of the NJVid Commercial Video Master Deposit Agreement.

- *Identity Management Survey*

Sujay Daniel, Network and Information Systems Architect at NJEDge.Net, conducted a statewide Identity Management Survey that not only helped to gather information from New Jersey institutions concerning their ability to participate in the formation of a statewide federation of identity trust using Shibboleth, but heightened statewide awareness of the growing need and potential for participating in it.

NJEDge.Net has set up a web site (<http://federation.njedg.net/>) and an email address (shib@njedg.net) to aid New Jersey institutions in either “shibbolizing” themselves or sending directory information required for a centralized LDAP (Lightweight Directory Active Protocol). Rutgers University has also provided information at <http://shibboleth.rutgers.edu/> to assist New Jersey institutions. Charles Hedrick, CTO at Rutgers University, has also made himself available to help institutions set up shibboleth.

Nineteen institutions out of 52 responded to the survey for a response rate of 37%. Of the respondents, six were public 4-year colleges, four were public 2-year colleges, six were private colleges, and two were public schools. Currently four universities run Shibboleth. Three universities are already using EduPerson schema. Two K12 schools use Active Directory. Two 4-year institutions are already participants in the InCommon federation. One third of the respondents have no plans to trial or implement Shibboleth. The number one reason for not implementing Shibboleth was lack of support personnel followed by other higher IT priorities and lack of acceptable ROI. Clearly NJEDge.Net and NJVid have work to do in order to overcome these initial barriers. Much of this is a matter of providing assistance, which underscores a strong reason to join in a statewide identity trust.

- *NJVid User Survey*

An NJVid Evaluation Survey was distributed to Alpha Implementers and known participants. We encouraged the users with whom we are familiar to forward the survey to individuals within their institutions whom they knew to have used NJVid but of whom the NJVid Project Team may be unaware. The survey was conducted from March 30, 2009 to April 24, 2009, and Judy Jeng will have the report ready for the NJVid Committee shortly.

Activities Review by Group

- *NJVid Project Team*

After the Commons Launch, the NJVid Project Team began to concentrate on the next big collection launch. We decided to begin with Films Media Group (FMG) as our first major commercial vendor. FMG is one of the largest and most often used commercial vendors. In addition, FMG has developed digital content and even offers learning objects that it has created

as an extra bonus to its users. We knew that if we overcame all the potential problems with FMG and its set of learning objects, we would position ourselves very well for dealing with other commercial vendors.

The NJVid Project Team has been researching hardware for the past six months. We thought it would be critical to wait until we were really sure that we had identified the appropriate hardware for the task of storing a statewide repository of digital video. Finally, in December, we concluded that Sun's Amber Road offered the best storage solution. It affords the best growth opportunities. Initially we had surmised that about 11 terabytes (TB) would be needed for NJVid. However, with the decided-upon configuration, we will have close to 100TB with the ability to grow to 500 TB. NJEDge.Net decided to cover the additional dollars needed to provide us with this capability. The servers will be located at Montclair's Data Center, which now has fiber directly connecting it to NJEDge.Net. Most of the hardware is now in place and full hardware installation should be completed by late May.

Rutgers is almost ready to release Fedora 5.0 (based on RUCore's latest version) to NJEDge.Net (approximately the end of May). This represents a big step forward in transferring the repository from Rutgers University, which has been temporarily housing it for the Commons Launch, to NJEDge.Net. Fedora 5.1 will not provide support for the upcoming Annotation Tool, either. Fedora 5.2 will provide support for the Annotation Tool, but it will not be released until December.

Once fully installed at NJEDge.Net, NJVid will be ready to expand into its next collection, Commercial Video. Fedora 5.0 still has a few issues with the Workflow Management System (WMS) into which metadata is added, but it *does* include Shibboleth integration for appropriate authentication and authorization, and XACML (eXtensible Access Control Markup Language) which enables metadata to be linked with the digital object in the repository.

XACML statements also enable licensing institutions to access any videos they have licensed. A utility will be used to create XACML statements for the videos, but it became apparent that a Collection Manager for NJVid must be on duty to ensure that the XACML statement is updated as new titles are added later or institutions join in on a title or renounce their license. An email will be generated by the XACML statement that tells the Collection Manager or institution (whoever is adding the metadata for the first time) that "Your video is ready for cataloging." An individual institution has to send a copy of the Vendor/Licensee license to the Collection Manager in order to be added. An institutional collection manager would prepare the metadata for a first-time commercial video title and ingest the video title, but the Collection Manager would double check it and enter the XACML statement. In effect, the NJVid Collection Manager will help to ensure the integrity of the WMS. Tom Nemeth, NJVid Project Coordinator, will act as the NJVid Collection Manager. A multi-day training will be scheduled between Rutgers and NJEDge.Net in mid-July. Tom Nemeth will participate in this training.

There are currently two kinds of collection access – a sub-collection for each institution and institutional OPACs with exported MARC records. However, institutional partner portals can also be developed for access. Partner portals need to be set-up in Fedora and added to a local institution's web site with the help of its webmaster. Chad Mills, Rutgers' Web applications programmer, is working on a Wizard in Fedora 5.1 that will let institutions quickly and easily create their own partner portals.

There is obviously a need for commonly understood identifiers for all institutions. Grace Agnew is chairing the NISO (National Information Standards Organization) Institutional Identifiers Working Group. Robert Harris, William Paterson University and NJVid portal developer, will serve on this working group and represent the needs of NJVid.

Development of the Annotation Tool is proceeding nicely. The delivery timeframe for this service is December '09. Chad Mills recently informed the Project Team that the prototype will be ready in June, so a Feedback Focus Group composed of the Advisory Board members is planned for that time. The Project Team Advisory Board sub-committee will develop the agenda for this meeting.

Process for Commercial Video ingestion is still being worked out but is pretty much as described above. One of the issues that arose is the need for a manual control of rights events since each commercial video title will be different for each institution licensing it. How this will be accomplished within the WMS needs to be developed.

Another change that may occur within the next few months is not only to move NJVid from its temporary location at Rutgers University but to move the portal web site from William Paterson University to NJEDge.Net. This may occur by the end of July as complete transfer and training should be completed by then. It is an exciting prospect to look forward to having NJEDge.Net fully up and running as NJVid's service provider.

- *NJVid Working Groups*

Locally-Owned Content Collections – Having launched the NJVid Commons last Fall, this group has continued to work to bring in more videos. On January 30, 2009, the NJVid PI and Project Coordinator met with Mahesh Nair from Fairleigh Dickinson University (FU) to discuss adding approximately 104 videos to the NJVid Commons. Currently, six are being transcoded by Isaiah Beard for initial ingestion and FDU's collection manager will be trained to enter metadata in the WMS. Other meetings have occurred with the American Labor Museum, Jersey City Museum, Montclair State University, New Jersey Institute of Technology (NJIT), St. Peter's College, and The College of New Jersey (TCNJ). The goal for the NJVid Commons is to have approximately 200 titles by the end of year three of the IMLS grant.

Commercially Licensed Video Collections – The Commercial Video workgroup and the VALE Digital Media Committee have been engaged in acquiring content by meeting with Commercial

Video Vendors to develop appropriate pricing and to purchase content. While this group has been busy negotiating the individual institutional licensing and purchase prices by leveraging consortium pricing through VALE, another master agreement between each individual Commercial Video Vendor and NJVid will need to be developed. Meetings with FMG, our initial Commercial Video Vendor, have already begun, and a draft of the Commercial Video Vendor Master Deposit Agreement has been drawn up. Meanwhile, VALE announced their new licensing offer:

<http://valenews.wordpress.com/2008/10/15/new-vale-digital-video-licensing-offer/>

Additionally, the VALE Digital Media Committee has negotiated consortium pricing with three more vendors: BioMEDIA Associates, Ambrose Video and Intelcom.

Web Workgroup –As stated in the NJVid grant, a quick survey was added to the web site where users can answer a handful of questions about their experience using NJVid. Responses indicated that the entry page needed to be clearer in how to proceed to find videos, so we added appropriate directions. We also created a site map linked at the bottom of the web site. Users like the thumbnails that display as part of search results. We also added two items to Fedora’s basic short display of search results: “Duration” and “Target or Intended Audience” to enable viewers to decide more easily whether or not they want to access the video’s full record.

Intellectual Property and Copyright – This workgroup presented in front of the NJVid Advisory Group at the NJEDge.Net preconference workshop. They discussed the guidelines and sample forms available to contributors to the NJVid Commons. They described the procedures they had undertaken to draft and approve each document and the intense amount of consideration that went into developing each working document. All documents are now up under the Contribute link on the NJVid web site to provide guidance to all NJVid Commons contributors.

Metadata Workgroup – The Metadata workgroup worked on refining the Metadata Deposit Form that is being used to handwrite metadata that is entered into the Workflow Management System by a member of the Metadata working group. This version is much clearer than the former version, and the workgroup used this one to enter metadata for the initial batch of Commons videos. The Metadata workgroup also demonstrated the Metadata Deposit form for the NJVid Advisory Board at the NJEDge.Net preconference workshop and shared the process by which they developed standards and guidelines for entry. This form is available under the Contribute link on the NJVid web site.

Outreach and Marketing – Thomas Uhlein, Professor of Graphic Design at William Paterson University, assisted us in developing a tri-fold brochure for NJVid that may be distributed at conferences and meetings. This was ready in time for the Webwise Conference and was distributed there and at other subsequent conferences and presentations. Tom has been a tremendous aid to NJVid in helping us to develop our logo and promotional materials. He also designed a 4’ X 5’ poster for the EDUCAUSE national conference at which Sandra Miller presented NJVid. Sandra Miller also created a podcast about NJVid at EDUCAUSE that is now available on its web site:

<http://www.educause.edu/blog/gbayne/E08PodcastAnInterviewwithSandr/167984>

We continue to send out calls for video submissions. We worked with Bob Wolk, Outreach and Marketing Chair, to create a survey for the League of New Jersey Historical Societies to go out this summer that includes questions for NJVid usage. VALE put out a call for video submissions on 2/23/09:

<http://valenews.wordpress.com/2009/02/23/njvid-launches-as-resource-for-educational-videos/>

Conferences and Presentations:

- National Media Market – October 4-8 – Jane Hutchison
- EDUCAUSE October 29th, 2009 – Panel Presentation and podcast – Sandra Miller
- InCommon – February 18, 2009 – George Laskaris and Grace Agnew
- Webwise – Feb. 25-27th, 2009 – Sandra Miller and Tom Nemeth
- StateNets at Nets@EDU – 2/2009 – George Laskaris
- Association for Computing Machinery (ACM) 3/2009 – Sheri Prupis
- Internet2 – April 27, 2009 – George Laskaris and Grace Agnew
- New Jersey Library Association (NJLA) – April 28th, 2009 – Sandra Miller and Grace Agnew
- University of Medicine and Dentistry in New Jersey (UMDNJ) – April 28, 2009 – Isaiah Beard

Authentication and Authorization – This workgroup began to meet in earnest as much work needs to be accomplished in support of the Commercial Video launch. On 2/12/09, the first real meeting took place. Using the results from the Identity Management Survey, the eight institutions that will participate in the FMG test were determined. The biggest question that needed to be answered was whether or not each of the eight institutions would participate in a centralized Shibboleth service or set up peer-to-peer Shibboleth at their institutions. We would like to test both as the first may well be the model for most K-12, libraries, and museums. As concluded by our “final” eight institutions participating in the FMG test, two will use centralized LDAP while the others will use peer-to-peer Shibboleth.

Collection managers at each institution will need separate logins – one as a user with which to use the annotation tool and access the “My Content” section of the NJVid web site, and one as his/her institution’s collection manager with which he/she will have administrative access to his/her institution’s video records in the WMS. We will compile the list of collection managers and place their names into an “NJVid Collection Managers” collection, which NJEDge.Net will oversee. In addition, we will develop an identity federation for the State of New Jersey. We decided to name it “NJ Trust” and will research this name to see if it is available to trademark.

On 4/14/09, all of the identity managers and collection managers from the FMG test institutions met to discuss their next steps. The process of how authentication and authorization operates within the WMS was explained to the participants. Specific required

attributes were discussed. NJVid mandates the “eduPersonScopedAffiliation” attribute. We will need personalized attributes such as “eduPersonTargetedID” if we need to track usage and maintain account profiles, but, regardless, each institution has an option to release it to NJEDge.Net at this time. The question of guests’ access was discussed. NJVid may require a lower assurance profile than other services that may be offered in the future through NJ Trust. As institutions “shibbolize,” they may want to use eduPerson attributes to keep their Shibboleth standardized to work with other applications offered both by NJ Trust and InCommon. NJ Trust can operate on both assurance profiles (high and low). NJ Trust supplies participants with all the information they need to set up Shibboleth as well as all specific, required metadata. This information is available at <http://federation.njedg.net/>.

We hope to have all FMG testing institutions ready to use Shibboleth by the first of July. FMG testing institutions will stay in touch with NJEDge.Net on how they are proceeding by emailing shib@nedg.net, which is a special email address set up to provide instant help and keep track of progress in this area. Policies and procedures will continue to develop in line with NJ Trust.

Performance Summary

This reporting period finds the project on budget. Two new programmers have been hired: Sean Edge, Applications Programmer, and Adam Adamou, Systems Programmer. The servers and storage have been purchased for NJEDge.Net and are currently being installed. NJEDge.Net will submit its invoice to William Paterson University shortly. Matching expenses will be especially high in Year 2 as NJEDge.Net opted to add purchasing funds to those of IMLS in order to expand 100 Terabytes of potential storage growth to 500 Terabytes of storage in the future as needed. This should be evidenced in the year-end financial report.

The timeline has been pushed back a bit in order to aid development of Fedora 5.0 and to ensure a successful transfer from Rutgers University to NJEDge.Net of NJVid. The hardware installation at NJEDge.Net is ongoing through June 1st, 2009. Rutgers will release Fedora 5.0 to NJEDge.Net in mid- June. The NJVid Commons should be exported over to NJEDge.Net from Rutgers by July 15th. A multi-day training period for all NJEDge.Net personnel and Tom Nemeth, NJVid Collection Manager, will take place around this time with Rutgers coordinating and conducting most of the training. The FMG test videos should be ingested, XACML files created, and FMG videos ready for testing by the eight institutions by August 1st. We are anticipating a September launch of the Commercial Video collection – specifically FMG. If possible, other commercial vendors’ titles will be made available shortly thereafter.

SM/5-15-09