This interim report outlines the Phase 3 objectives, activities, participants, status of associated deliverables, and timelines conducted on behalf of the project during the period of January 6 to June 30, 2003. The remainder of the project's Phase 3 activities and outcomes for the period of July 1 through July 31, 2003 will be documented in a separate, final project narrative to be submitted by WGBH.

Phase Three Development/Overview

The official launch of Phase 3 on January 6, 2003 occurred during a strategic Future Fund review process at CPB. Through mid-May 2003, Amy Rantanen and Marcia Brooks/WGBH worked with Alison White/CPB to develop and strategically align Phase 3's project scope, objectives, budget, and working group structure/activities with the emerging outcomes and priorities of the strategic review, and to address areas considered critical to the longevity and efficacy of the project's work.

While these efforts were realized, the Public Broadcasting Metadata Dictionary (PBMD) working group was in hiatus, and was reconfigured into six task teams to address: Intellectual Property and Communications; Problem/Value Statement; Sustainability, Dictionary Development; Request for Comments (RFC) and Test Implementation; and Integration and Compliance. (See "Working Group Task Teams Status" below.)

The working group's active work began the third week of May, with the exception of the Dictionary Development Team, which began work in early May to prepare a project paper for acceptance and presentation at the September 2003 Dublin Core conference (see "External Project Communications Planning and Activities" below for more information).

Alison White/CPB, with input from Marcia Brooks/WGBH, provided each task team with objectives and suggested activities. Each task team was assigned a team leader, to comprise the project Steering Committee, and to advance cross-team coordination. Steering committee efforts are in the preliminary planning stage.

Throughout this process, WGBH maintained communications with working group members, and interested parties as listed below.

Internal Project Communications Planning and Activities

Project Web Site and Listserv

In Phase 3, WGBH assumed responsibility for arranging with Paul Burrows/KUED Media Solutions to provide Web services and hosting for the project Web site <http://www.utah.edu/cpbmetadata/>, and for the project listserv. WGBH continued its ongoing direction of KUED's efforts, which specifically entailed: posting updated project documents to the private (working group/advisors only) section of the Web site; creating separate areas on the private section of the project Web site for the six task teams of the Working Group, and revising the listserv distribution list to reflect changes to the Working Group participants.

Task Team Conference Calls

WGBH established a series of a dozen regularly scheduled conference calls for the various task teams, and supported the activities of each by: serving as meeting facilitator; establishing call agendas; documenting and distributing meeting notes/action items; ensuring cross-team updates and coordination; following up with individual team members; and coordinating the above with CPB. WGBH additionally assumed responsibility to participate in specific task team activities and deliverables. Reports on the specific activities and recommendations of each team are included in this report.

Additional Project Coordination

In late May, Jonathan Downey, Director of Digital Media for NPR Online, e-mailed Marcia Brooks with a request to be included in general project conversations about XML (eXtensible Markup Language, a form through which metadata may be exported, translated and imported), and their possible relation to radio station KJZZ (see "External Project Communications Planning and Activities" below). Jonathan's note came after the coordination with KJZZ, but Jonathan was visiting WGBH on June 20 and requested an informal meeting. Marcia convened a conference call to coordinate with Dictionary Team member Marty Bloss (of NPR/PRSS), and Alison White/CPB regarding XML's potential role in the Dictionary Team's efforts. It was acknowledged that Jonathan's technical expertise and knowledge of XML can serve as a resource to help inform the Dictionary Team's work. Note that Jonathan supervises Rob Holt, who is assigned to the Sustainability Task Team (C).

External Project Communications Planning and Activities

Project Web Site

WGBH coordinated with Paul Burrows of KUED Media Solutions to provide project documents and updates to the public section of the project Web site.

Coordination with Related Public Broadcasting Projects/Organizations

PBS/TiVo

At the request of David Liroff (WGBH's VP and Chief Technical Officer), WGBH continued efforts that began in Phase 2 to coordinate activities of the Metadata Dictionary for Public Broadcasting project with those of PBS's initiative to refine PBS program descriptor metadata (in partnership with TiVo). The broad goals of the PBS initiative are to ensure that PBS program descriptor data is complete enough to best support PVRs (personal video recorders) and EPGs (electronic program guides), and to distribute a set of guidelines/policies for PBS National Program Service producers such that the data ultimately originates from the producers (and where applicable, the stations).

WGBH's Thom Shepard, who has participated in the working group's Dictionary Development team activities, and has done extensive work on WGBH's metadata model development, worked with the PBS internal working group that spearheaded these efforts.

Marcia Brooks/WGBH is additionally coordinating with Deron Triff/PBS and the Dictionary Development team of the working group, to minimize confusion in the public television system about the two projects, and to maximize their intersection where possible.

Coordination with Interested Vendor

On March 24, 2003, Marcia Brooks/WGBH met with Carol Risher, SVP of Business Development at Savantech. Carol had inquired at PBS about their Digital Asset Management efforts, and was referred to WGBH for more metadata project information by Working Group member Bea Morse/PBS. Carol had also spoken with Alison White/CPB, who had explained that the project phase requirements were still in development. Carol also noted that (Dictionary Team member) Marty Bloss/NPR had seen their product demo.

Marcia coordinated beforehand with Bea, Alison and Marty. In the meeting, Marcia gave an overview of the project and its status. Noting that the current phase requirements and the RFC and Test Implementation processes were not yet developed, Marcia noted that it would be premature to speak to a vendor's role – if any -- in the process. Carol realized that a product demo wasn't necessary, and simply asked that Savantech be kept in mind.

KJZZ-FM/Phoenix

In May 2003, WGBH coordinated with the Dictionary Development team of the working group, and with NPR, to address KJZZ's Webmaster John Tynan's questions and requests in implementing the Dictionary as part of his efforts to build out KJZZ's existing Web content management system and its ability to publish to XML.

KJZZ requested assistance in answering questions from the consultant they engaged to improve KJZZ's ability to send and receive XML data, and requested an example XML file showing the appropriate syntax for an XML file, using the Dictionary.

It was determined that these requests were beyond the project scope, and in fact, KJZZ's request for early release of the Dictionary precipitated agreement by the Dictionary Team not to release the Dictionary prior to the Request for Comments (RFC) process, and that early requestors would instead be invited to participate in the RFC in the next project phase. In the interim, WGBH supplied KJZZ with the Dublin Core elements.

Project Presentations and Papers

National Educational Telecommunications Association (NETA) Conference

On Friday January 10, 2003, Paul Burrows of KUED Media Solutions represented the PBMD project in the conference session "Getting Ready for Asset Management".

For 1.5 hours, Paul presented the rationale for, and the current work accomplished by, the Public Broadcasting Metadata Dictionary Project. Paul emphasized how the project may impact public television and public radio operations and workflows, but all in the name of sharing and exchanging data across departments within stations and among stations themselves.

Paul invited Alison to discuss the examples about the project touch points within a station's current operations.

Paul emphasized that, given the calendar date of the NETA conference relative to the project's planning, the update on RFC and Testing would be rather sketchy, and listed the proposed target populations for the RFC. The actual Dictionary was briefly reviewed. Current status of the project phases was identified. The final slide identified the web URL for accessing further information about the cpbasset and cpbmetadata web sites.

Approximately 20-25 people attended, representing almost all managers of various departments in public broadcasting stations (no producers were represented). The audience was intrigued

with the project, and absorbed a great deal of information, which included a combination of high and low-tech content.

PBS Technology Conference

On Sunday, April 6, 2003, Alison White of CPB, along with Alan Baker of Minnesota Public Radio (MPR), presented the work of the PBMD team thus far at the PBS Technology Conference, in Las Vegas, Nevada.

Alison focused on the purpose of the Dictionary, and the history of the project, while Alan described in more detail how the Dictionary might be integrated into existing production and broadcast operations software.

Many in the audience of roughly 75 had heard about the Dictionary, and made pertinent suggestion and comments (one audience member was Lowell Moulton of Sony, who is working with the SMPTE Metadata Registry. Alison and Alan visited with him and/or his colleagues at an NAB exhibit a few days later to find out more.)

Integrated Media Conference

On April 15, 2003, Alan and Alison again presented the PBMD project, but this time to a web-oriented crowd, at the Integrated Media Association Conference in Minneapolis.

Alan and Alison had prepared an abstract for this session (submitted under separate cover) that described the Dictionary's relevance in integrating data across public broadcasting's systems, and used that as a basis for the presentation. About 15-20 people attended the early morning session (7:45 AM!), and many were knowledgeable about metadata.

After Alison introduced the project, Alan was able to provide detailed descriptions of his work to create a local archive and data dictionary for MPR.

Dublin Core Paper

In an effort to further publicize the project and its work, the Dictionary Development team (led by advisor Efthimis Efthimiadis/University of Washington and with contributions from Thom Shepard/WGBH), authored a paper for submission acceptance for presentation at the Dublin Core conference in September 2003. The paper covers:

> The need for public broadcasting metadata
> What alternatives were available
> Why we chose to develop the PB Core
> The process for assessing the need and gathering user requirements
> The process of refining the PB Core (referred to internally as "the smackdown")
> The PB Core elements
> The application profile
> Feedback & evaluation mechanisms
> Next steps.

Once completed, it became apparent that the paper has added value as an excellent project summary, and project participants have distributed it to other interested parties for that purpose.

Working Group Task Teams Status

In Phase 3, several of the newer Working Group members were unable to continue their participation, and WGBH is continuing efforts to replace them, and/or to otherwise involve them in the RFC process as appropriate.

WGBH began preliminary discussion with team leaders about their role in coordinating the task teams' efforts. WGBH coordinated with CPB regarding each task team's participants, objectives, and status of activities, which are summarized below. Specific deliverables noted will be submitted under separate cover. The remainder of each team's Phase 3 activities to advance the efforts summarized below will be outlined in the final Phase 3 project narrative.

Task Team A – Intellectual Property and Communications

Assigned Team Members

Alison White/CPB (Team Leader), Marcia Brooks/WGBH, Dennis Haarsager/KWSU.

Objectives

1. Develop a clearer understanding of intellectual property issues as they relate to the PBMD
2. Develop a marketing plan for the project
3. Strengthen internal project communication

Status/Activities Conducted to Date

The task team members convened for regularly scheduled conference calls on May 30, June 13, and June 27.

Per Objective #1:
The team conducted Web research to review how other standards bodies address these issues.

Dennis consulted with Dictionary Team member Dave MacCarn and advisor Efthimis Efthimiadis, on the issue of tangible intellectual property value of the Dictionary. Dennis also conducted additional Web research on extant schema. The result revealed similarity in "open source" approaches in the manner of GNU/Linux systems, and information on the BBC's efforts to apply for a patent for SMEF, while making it freely available.

Alison White spoke with Steve Altman and Susan Ross (VP and Director of CPB's Office of Business Affairs) regarding intellectual property and copyright issues, and the implications of charging for, and managing, the Dictionary.

Incorporating the above, Alison authored a draft paper reflecting the above efforts, to outline: issues, concerns and considerations regarding the value and intended use of the Dictionary; intellectual property issues; and implications of public domain distribution.

With realization that this discovery may reveal scenarios and entities that don't yet exist in public broadcasting, Marcia issued a request to the Working Group that the emerging findings remain private within the Working Group, in order to encourage in-progress free thinking without concern for its "political" impact.

Per Objective #2:

Alison White authored a draft marketing plan with input from Dennis and Marcia. For the plan's "communications audit", Marcia contributed a list of all presentations delivered since the project's inception.

Per Objective #3:

The team discussed the benefits to participating organization and their representatives. Alison initiated preliminary discussions at CPB about how best to signal the value; the preliminary plan is for Alison to draft a letter from Bob Coonrod/CPB to the superiors of the project participants, and to seek its approval and execution.

Task Team B – Problem/Value Statement

Assigned Team Members

James Steinbach/Wisconsin Public Television (Team Leader), and Tim Olson/KQED.

Note: Public Radio International (PRI) was assigned to participate, but is in the process of hiring and appointing a different project representative. Grace Agnew, AMIA (project advisor) was assigned to the group but has been unable to participate, although she has indicated her ongoing strong support and praise for the project and its achievements to date.

Objective

Create a more developed "problem/value statement" for the project.

Status/Activities Conducted to Date

While the team was unable to come up with mutually agreeable conference call days and times, work was conducted via e-mail.

James drafted a problem/value statement, with input from Tim. It was forwarded to Alison White/CPB for review and determination of next steps.

Task Team C – Sustainability

Assigned Team Members

Judy Brown/SCORM, Rob Holt/NPR Online, Dave Johnston/PBS Online, Ann Lootens/WGBH, Chuck McConnell, NETA/OSBE (Team Leader), Art Zygielbaum/Nebraska Educational Television, and Thom Shepard/WGBH (Advisor).

Objective

Develop a plan for "sustainability" for the PBMD, to include: expected lifespan; the most useful form the Dictionary would need to be expressed and held; the required activities to maintain the Dictionary and their associated cost and personnel requirements; and the required level of commitment to sustainability.

Team C has not been able come up with mutually agreeable conference call days and times. Attempts to request individual input have yielded two responses from team members thus far. Additionally, at one team member's request, Marcia Brooks/WGBH held additional discussions to break down the objectives and activities into more readily understandable and do-able next steps from the perspective of that person's discipline and job function. In the remainder of Phase 3, further input may possibly be forthcoming from one or more team members.

The process and its challenges yielded several key learning outcomes for the project, that:

> Increased recognition and awareness is due in the project scope planning, to more accurately reflect the enormity and complexity of the task;
>
> A more realistic assessment of participants' ability to address such complex project issues is needed. The team is comprised largely of newer members, who more likely lack an in-depth perspective of the project. Moreover, it should be recognized that most working group members, with the possible exception of Dictionary Development team members, are not subject matter experts on these complex matters, and working group activities and scope should be scaled accordingly.
>
> The importance of maintaining continuity in the project should not be underestimated; a complex task is that much more difficult to complete after a project hiatus.

Task Team D – Dictionary Development

Assigned Team Members

Alan Baker/MPR, Marty Bloss/NPR-PRSS, Paul Burrows/KUED Media Solutions (Team Leader), Efthimis Efthimiadis/University of Washington (Advisor), Dave MacCarn/WGBH, Cate Twohill/PBS. Additional support provided by Scott Bridgewater/NPR-PRSS, and Thom Shepard/WGBH.

Objectives

Continue development of the Public Broadcasting Metadata Dictionary, including:

- Ascertain whether controlled vocabularies and/or authority files are required for the PBMD, or recommended.
- Develop controlled vocabularies/authority files as needed. (Note: AW recommends working from MPR's and WGBH's previous decisions.)
- Determine whether parts of the Preliminary Dictionary can be finalized now, and released to projects that request it.
- Continue development of MD presentation/maintenance format: Application Profile in Filemaker database, Excel, HTML (HyperText Markup Language), etc.
- Plan User's Guide (see http://dublincore.org/documents/usageguide/).

Status/Activities Conducted to Date

The task team members convened for regularly scheduled conference calls on May 28 and June 11, with an additional call on May 22 to coordinate efforts to author the project paper submitted for acceptance and presentation at the September 2003 Dublin Core conference.

As has been the case from the project's inception, the team members were highly motivated and productive. The team members – individually and collectively – remained proactive throughout the problem solving and consensus building processes. Of particular note and commendation are

the tireless and iterative efforts of Paul Burrows/KUED Media Solutions to: aggregate team comments; update/modify the Dictionary accordingly; track the changes for reference as needed; and resubmit the results to the team. Paul also shared resources from the metadata standards world to inform the group's work.

While the focus of the Team's work was to finalize as many outstanding decisions as possible to prepare the Dictionary for the first public presentation (the RFC process), team members contributed additional efforts to:

> Author the paper for the September 2003 Dublin Core conference
> Coordinate and advise regarding KJZZ's requests, and their associated implications regarding the early release of the Dictionary (see "External Project Communications Planning and Activities" above for more information).
> Coordinate and advise regarding the potential intersection of the project with the development of PBS' program descriptor guidelines (for electronic and cable program guides)
> Coordinate with Team E (RFC and Test Implementation) to ensure alignment with the emerging RFC and Test Implementation draft plans.

In approaching its work to prepare the Dictionary for the RFC, the team began with the following assumptions:

> The Dictionary would need to be ready to publish in preliminary form at the end of this current phase (July 31).
> There are questions and unresolved issues that remain from the "Smackdown" (also known as the Boston Summit), and that if these cannot be resolved during Phase 3, they will be included and specifically addressed as part of the RFC process.
> The main audience for the Dictionary is within public broadcasting, but that the user requirements matrix on the project Web site outlines the Dictionary's constituents.

While conducting its work, the team reached the following initial agreements, that:

> Whether controlled vocabularies and/or authority files are required or recommended will likely be revealed in the team's newly compiled list of comments.
> The first RFC round with the working group will likely reveal whether there is agreement with Alison White's recommendations to work from MPR and WGBH's previous decisions.
> The process of developing a user guide is an outcome of continued development of the Dictionary presentation/maintenance format (essentially cleaning up the Filemaker tool for wider consumption and designing an HTML version for the web that can serve as a single source for interested parties to review).

Team efforts focused on the goal of resolving ambiguities in the PB Core, and providing specific questions/requests for input for the RFC process. Team members worked diligently, and often on short-turnaround, to provide input and review the changes in-progress to the Dictionary. Preliminary discussions were held to set the stage for the remainder of the Phase 3 activities that will be referenced under separate cover in the final Phase 3 project narrative, especially regarding the development of controlled vocabularies.

Task Team E – RFC and Testing

<u>Assigned Team Members</u>

Nancy Baldacci/American Public Television, David Felland/Milwaukee Public Television, Steven Heard/Public Interactive (Team Leader), Bea Morse/PBS, Steven Vedro/Consultant, Wisconsin Public Television.

<u>Objectives</u>

- Plan the Request for Comments process, including participants, questions to be asked, method for compiling, analyzing and reporting findings and recommendations, estimated timeline and budget.
- Plan Test Implementations phase: criteria and selection process for participants, hypotheses to be tested, budget, etc.

<u>Status/Activities Conducted to Date</u>

The team conducted regularly scheduled conference calls on June 10 and June 24.

It was initially agreed to focus first on the RFC process, and to then focus on the Test Implementation process. The majority of the work in this portion of the project phase focused on the developing the RFC process. The team reviewed and supported the supplied draft list of learning outcomes hoped to be gained from the RFC.

It was determined that the RFC process would be comprised of two rounds; the first for the working group, and the second for a wider list of constituents and interested parties of the Dictionary. The group maintained a list of RFC participants, to reflect all suggestions received from the working group and project participants. Efforts were coordinated with Paul Burrows/KUED, in order to post revised lists to the project Web site for all working group members' review.

Through detailed discussion, the team identified a Web survey as the most efficient means by which to conduct the RFC process, including the collection, analysis and reporting of RFC survey results. Toward that end, Steven Vedro/Wisconsin Public Television spearheaded the team's efforts to refine the list of draft questions that was provided in the team's recommended activities; the team parsed the question set into two sets, for general interested parties, and for subject matter experts. Additional discussion identified suggested means by which the RFC results would be published and shared.

Marcia Brooks/WGBH ensured initial coordination between this team and the Dictionary Development team, noting that the Dictionary Team would provide element-specific questions for the expert user question set. Marcia coordinated with Nancy Baldacci/APT to support her in-progress efforts to develop a simple test participants' matrix, to map test's learning objectives to participants' disciplines, organizations and related projects.

Drawing from team input, Marcia drafted the initial RFC plan, which includes estimated timelines. The team is participating in its further refinement.

Task Team F – Integration and Compliance

Assigned Team Members:

Michael Connet/onCourse (Team Leader), Meg O'Hara/WNET <unable to participate>, Marilyn Pierce/PBS, Amy Rantanen/WGBH, Mike Tondreau/Oregon Public Broadcasting, Tracy Vosburgh/WPSX- Penn State.

Objective

Develop a "map" or model that describes how this work and this instrument are related to public broadcasting's broad and long-term data exchange, storage and integrity needs.

Status/Activities Conducted to Date

The task team members convened for regularly scheduled conference calls on June 16 and June 30.

Team members were asked to read and be familiar with the project's paper for the 2003 Dublin Core Conference, and other project documents.

Using the project's User Matrix document and draft information supplied in the recommended activities, the team developed a list of software companies and other institutions that would be affected by the Dictionary's compliance requirements.   The list included entities affected at the program and clip-level.

The team identified and began work on interview assignments for each member to conduct, to yield information about what might constitute compliance from the perspective of national organizations, stations, libraries/museums, partners, and vendors. The team discussed the types of questions that would need to be addressed in order to yield meaningful results from the interview process.