

## Music of Social Change:

### Library-Museum Collaboration through Open Archives Metadata

**Summary:** The MetaScholar Initiative of the Emory University Libraries, in collaboration with the Center for the Study of Southern Culture, the Atlanta History Center, and the Georgia Music Hall of Fame, seeks \$49,160 to use the Open Archives Initiative (OAI) protocol to develop a new model for library-museum collaborations that broaden access to resources for learning communities.

**Introduction:** The Open Archives Initiative (OAI) is rapidly becoming the de facto standard for the dissemination of research metadata concerning digital library collections (see <http://www.openarchives.org>). While librarians and archivists in research libraries often use this protocol for collaborative purposes, museum curators, who work with similar archival collections, have been largely absent from conversations and projects concerning the use of the OAI protocol for sharing metadata. This project seeks to explore the OAI protocol's feasibility as a mechanism for fostering collaboration between libraries and museums. Emory and its partners will model such collaboration by creating a specific subject-based digital collection containing metadata from libraries and museums concerning music and musicians associated with social change movements such as the civil rights struggle. Scholars engaged in research on the relationship between music and social movements will provide intellectual organization and contextualization for the metadata collaboratively accumulated from participating institutions during this project. This work will build on expertise and systems developed in an existing scholarly portal project, *AmericanSouth.Org*, which has accumulated metadata concerning the culture and history of the South.

**Project Activities:** Through this project, museum directors, curators, catalogers, scholars, and technologists will collaboratively produce a model for the use of the OAI protocol to provide services to learning communities. The project team will then implement and assess this model through actual collaborative metadata dissemination systems and the execution of the following activities: 1) cataloging materials at partner sites, providing OAI-compliant XML records; 2) developing and installing software for partnering libraries and museums that will enable metadata concerning relevant collections to be distributed on demand; 3) aggregating the metadata from participating libraries and museums to create a centrally searchable database of records; and 4) developing a body of scholarly material providing context for understanding primary resources concerning the music of the freedom struggle.

**Project Outcomes:** The *Music of Social Change* project will result in several outcomes that will collectively provide a new model for collaboration between libraries and museums, as well as create a body of information useful to several learning communities.

Outcome 1: Improved Collaboration between Libraries and Museums. Libraries and museums will be able to collaborate in several new ways by using the OAI Protocol. Museum databases will be able to interoperate with library catalogs by automated aggregation of records from disparate archives to create virtual online collections. Archivists, curators, and librarians will have freely available software to support the construction of subject-specific virtual collections. The project will provide the tools and training required by locally maintained databases and centrally maintained shared systems.

Outcome 2: Shared Cataloging Services. Small museum archives will gain access to cooperative cataloging services that can assist with the retrospective conversion of records that currently are held in non-machine readable formats. The OAI protocol will facilitate these cooperative cataloging services, allowing larger institutions to share staff time and expertise with smaller institutions.

Outcome 3: Enhanced Access to Collections for Learning Communities. Through this new collaborative model, groups of researchers and independent learners will gain systematic online access to often overlooked but substantial archival materials housed by museums, as well as related archival materials held by research libraries. Metadata describing collections will be contextualized by authoritative context and online content provided by scholars researching the collections under consideration.

## NARRATIVE

### **SECTION 1: NATIONAL IMPACT**

**Current Issues Facing Libraries and Museums:** Libraries and museums seeking to collaborate in providing services to learning communities have a new, broadly applicable tool in the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH). The Open Archives protocol (see <http://www.openarchives.org>) is now the de facto international standard for disseminating metadata concerning digital library collections, and it is being deployed in many regional and national infrastructures. [Lynch, 2001]<sup>\*</sup> However, many museums and libraries do not yet have OAI capabilities in their local systems because the protocol is still relatively new. Nor has there been any systematic exploration of the possibilities that this protocol offers for collaboration between libraries and museums. The project described in this proposal would explore both of these areas through focused collaborative efforts between the Emory University Libraries and three independent museums to enhance interoperability, integration, and seamless access to digital library and museum resources.

**Background:** Emory University became interested in this issue through its work with the MetaScholar Initiative. Based at Emory, the MetaScholar Initiative is a collaboration among academic research libraries and archives that have worked to develop and evaluate online learning communities built on top of new forms of OAI metadata systems (see Appendix B for an overview of the MetaScholar Initiative). Meta Scholar Initiative partners have expressed interest in exploring how museum collections could contribute to the development of resources for learning communities. Two MetaScholar partners are museums: the Center for the Study of Southern Culture and the Atlanta History Center. Officials of these two institutions have shared and highlighted the museum perspective and the special needs of museums with the other members of the consortium. Museums are key repositories of research materials, but have significantly different operational priorities and practices than libraries. Yet, there are clear benefits to collaboration between museums and libraries. Museums infrequently participate in the development of union catalogs of holdings typical of library consortia. Consequently, valuable museum research collections of realia are not made visible by such means to researchers who would benefit from knowledge of such items. Libraries do not have the expertise of museums in preparing exhibits that contextualize topics, which can inform efforts to contextualize online representations and metadata. For all these reasons, a project was proposed within the MetaScholar Initiative to more closely investigate several issues and potential benefits specific to collaborative interactions between libraries and museums. This project builds upon relationships and experience of the MetaScholar Initiative, but will enable investigative activities that would not otherwise occur.

**Potential Changes Resulting from this Project:** This project could dramatically change the way in which museums and libraries reach and serve scholars and independent learners. Access to resources will be increased through use of the OAI protocol to feed cross-institutional union catalogs and automatically build discovery systems. The usefulness of these resources will be enhanced by the collaborative strategies for contextualization by scholars, curators, and catalogers proposed in this project. Scholars and lifelong learners are often interested in specialized topics to be found in scattered small museums and repositories. Collaboration through the OAI protocol will enable these distributed institutions to rapidly and conveniently coordinate records and framing information for such specialized learning communities. This project will enable small museums and library archives to mobilize their efforts toward cooperative objectives through proven interoperable technologies.

**Impacts of Project Outcomes:** This project will accomplish several outcomes that will help museums and libraries take a leadership role in building community partnerships to support the development of learning communities in the 21st century:

1. **Improved Collaboration between Libraries and Museums.** The project will develop, document, evaluate, and disseminate a model program of cooperation between libraries and museums using the OAI protocol. This model will enable museums and libraries to collaborate in several new ways. They will be able to share and aggregate metadata concerning their collections through automated mechanisms. Virtual online collections of topically related items held at multiple institutions could be

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<sup>\*</sup> For all references, see Appendix A: Bibliography.

assembled for ad hoc purposes (i.e. subject portals for targeted learning communities, supplementary online exhibits of broader collections, and union catalogs of consortium holdings). Museum databases will be able to interoperate with library catalogs by automated aggregation of records from disparate archives to create virtual online collections. Archivists, curators, and librarians will have freely available software to support the construction of subject-specific virtual collections. The project will offer tools and training required by either locally maintained databases or centrally maintained shared systems.

2. **Shared Cataloging Services.** The project will study and document a model for centralized cataloging services acting in support of consortia of libraries and museums. Cooperative cataloging services can assist smaller institutions in several ways: with retrospective conversion of records that currently are held in non-machine readable formats, enhanced subject access and authority control, and the development of new metadata formats. The OAI protocol will facilitate these cooperative cataloging services, allowing larger institutions to share staff time and expertise with smaller institutions. The cataloging division of the Emory University Libraries also believes that there are many potential benefits to be realized by making available accumulated cataloging expertise in applying new XML metadata standards such as Dublin Core for wider distribution of information from museums and archives.
3. **Enhanced Access to Collections for Learning Communities.** The project will model discovery and research services for learning communities. Through this new collaborative model, groups of researchers and independent learners will gain systematic online access to often overlooked but substantial archival materials housed by museums, as well as related archival materials held by research libraries. Metadata describing collections will be contextualized by authoritative context and online content provided by scholars researching the collections under consideration. The subject domain of this project (music and musicians associated with major social change such as the civil rights movement) has been selected for several reasons. First, it is a good representative example of a relatively focused, interdisciplinary, topic of great interest to multiple learning communities, which can only be studied through primary sources held by many disparate museums and libraries. Second, there is significant need for better access to these resources (see *Section 3: Design* for more details on this need). Cultivating and providing public access to this particular online subject domain will therefore result in significant benefits for communities of learners quite apart from the benefits of developing a collaborative model. Finally, this subject domain emerged in discussions between museum curators and librarians in the MetaScholar Initiative as a topical area in which museum and library collections would complement one another in a particularly strong way for many actual learning communities, including graduate departments in universities and public associations of independent learners.

## **SECTION 2: ADAPTABILITY**

Adaptability and interoperability are some of the core benefits of the Open Archives protocol. The protocol is “lightweight”, meaning that it is simple to add OAI functionality to virtually any web-enabled database or web-accessible body of static records. The MetaScholar Initiative has intensively studied the process through which institutions add OAI capabilities to their local online database systems and has created dozens of such OAI data provider systems in collaboration with partners. In many cases, institutions replicated and re-used the software scripts and other software tools with only slight modifications.

**Adaptable tools the project will produce:** Based on experience accumulated in the MetaScholar Initiative, the project team expects the following tools produced by this project to be both adaptable and reusable by other libraries and museums seeking to collaborate by means of the OAI protocol.

- A. **Collaborative Model:** (Supports Outcome 1) This document will detail how libraries and museums can collaborate by means of the OAI protocol. It will include a section describing scenarios and benefits of implementing collaborative OAI systems in museums and libraries, a process map for planning such projects, a discussion of roles and responsibilities key to successful collaborations, a

discussion of differences and similarities between library and museum metadata practice (especially as relates to the OAI protocol), and a section on technical implementation and software resources.

- B. **Guidelines for Shared OAI Cataloging Practice:** (Supports Outcome 2) This document will provide practical advice for shared cataloging cooperatives based on OAI systems. Regional consortia of libraries and museums may use this guide in conjunction with the Collaborative Model described above to either coordinate metadata schema in forthcoming projects or integrate dissimilar metadata formats among existing cataloging systems.
- C. **Guide to OAI Research:** (Supports Outcome 3) This guide will describe how researchers can use OAI-based discovery systems (examples are AmericanSouth.Org at Emory University, OAIster at the University of Michigan, and the Cultural Heritage Repository at the University of Illinois) for research concerning materials held by libraries and museums. The guide will focus on interdisciplinary research strategies in the humanities.
- D. **Desktop Cataloging OAI Data Provider:** (Supports Outcome 1) This will be a software add-on package that will enable PCs with desktop database management systems such as Microsoft Access to function as cataloging stations capable of sharing and disseminating records via the OAI protocol. This tool will fill a gap identified in the MetaScholar Initiative, specifically the need for OAI-enabled database tools usable by small archives and/or museums for tracking and cataloging collections.
- E. **Training Materials:** (Supports Outcome 1) An instructional packet will be prepared for training archivists, museum curators, librarians and other professionals in the use of the adaptable tools described above. This training packet will be used in both this project and subsequent MetaScholar collaborative projects.

### **SECTION 3: DESIGN**

**Audience:** The audience for the proposed project is two-fold. First, the project offers small-to-medium-sized museums a model through which to collaborate with libraries to improve access to and contextualize specialized research materials. In so doing, the project will enable museums and libraries to increase the reach of their special collections and archives and more effectively meet the needs of diverse communities of learners in the 21<sup>st</sup> century. Second, the research resource created through the pilot application project, Music of Social Change, will meet the research needs of scholars in a range of fields related to civil rights and society, as well as the needs of lifelong learners interested in music and its relevance to culture, politics, and civic life.

**Needs Assessment:** The OAI protocol has fostered successful collaborations between libraries, but aside from some initial work in the MetaScholar Initiative there have been no focused efforts to apply this new standard to collaborative efforts between libraries and museums. This initial work took the form of planning meetings and focus groups that have analyzed ways that the OAI protocol can benefit learning communities. A recurrent topic emerging from these discussions is the over-representation of the library perspective and under-representation of museums and museum research collections in national efforts to utilize the OAI protocol. As a result, the Initiative has identified a great need for a project to explicitly investigate and model how the OAI can facilitate collaborations between libraries and museums seeking to provide cooperative services to learning communities. The MetaScholar Initiative is uniquely suited to undertake this project, given existing relationships among libraries, museums, and researchers.

**Museum Perspectives:** Museums must act in multiple roles that libraries most often do not. The demands associated with creating popular public exhibits sometimes compete with more scholarly services that museums wish to provide. As museums come under increasing pressure to remain commercially viable, collaborative alliances and strategies such as the OAI-based model proposed in this project can assist museums in cooperatively working with consortia for the benefit of learning communities, and extending the benefits of work done in one consortia to other groups. A concrete example in this project is the possibility that using the OAI protocol may allow work done for online learning communities in the MetaScholar Initiative to benefit communities served by the national Music Museum Alliance (see below). Some museums have affiliated research groups that

act in scholarly contexts, such as the case of the Center for the Study of Southern Culture. For this kind of institution, the OAI protocol may be able to simultaneously benefit both practical research activities that come into play for scholars and inventory considerations that come into play for curatorial staff.

**Core project partners:** The key institutional partners in this project will be the MetaScholar Initiative based at Emory University and three museums, including the Center for the Study of Southern Culture (CSSC) at the University of Mississippi, the Atlanta History Center, and the Georgia Music Hall of Fame (which will serve as liaison to the national Music Museum Alliance). Each institution brings particular strengths to this project. The CSSC, a museum and a research center, is led by Dr. Charles Reagan Wilson, a noted scholar and one of the founders of the AmericanSouth project in the MetaScholar Initiative. The Atlanta History Center is a renowned cultural museum and a core partner of the MetaArchive project in the MetaScholar Initiative. Finally, the Georgia Music Hall of Fame is a dynamic young museum participating in the founding of the new national Music Museum Alliance, a consortium seeking to raise visibility of collections in a targeted subject area through innovative communication mechanisms. The project will effect systemic change in museums and libraries through the efforts of project partners to share the collaborative model developed through consortial relationships. Project partners will disseminate the metadata and contextual material developed in the project to the learning communities served by project partners. Some examples of such learning community programs include the Graduate Institute for the Liberal Arts at Emory University, the Graduate Program in Southern Studies at Ole Miss, and the Public Lecture Series at the Atlanta History Center.

**Selection of Topical Focus:** The most successful metadata discovery services have targeted the needs of learning communities focused on particular research interests. Thus, the project team identified a practical, coherent, and timely research focus for the collaborative efforts undertaken through this project. The subject domain needed to be sufficiently narrow to target specific collections, yet sufficiently broad that it would be of interest to a reasonably large number of interdisciplinary scholars. By selecting music and musicians associated with social change movements, the project team sought to meet these two requirements.

**Subject Domain Research Context:** Noted scholars and activists Guy and Candie Carawan refer to the civil rights movement as perhaps “the greatest singing movement this country has experienced.” [Carawan, 1990] During the mid-1950s and 1960s, the act of singing fostered, united, and sustained the geographically diverse social movement culture affiliated with the civil rights movement. Recordings of the songs also helped those affiliated with the struggle for freedom to circulate their social and political messages to an audience that extended beyond the movement culture. To date, books and compilation CDs of music have served as the most prominent sources of information concerning the power of music within the civil rights movement. As part of an existing scholarly portal, AmericanSouth.Org, the project will provide a comprehensive on-line vehicle for the dissemination of information concerning these songs, their singers, and their role in the civil rights movement cultures. Within this portal, the project will link archival materials from library and museum databases and web resources from a variety of existing historical and recording-label sites, and then provide these disparate resources with a scholarly context through the development of study guides and articles. The project team expects the resulting portal to become an asset in classrooms, scholarly research, and searches by lifelong learners for information concerning this vital aspect of the freedom struggle. This project will therefore produce not only a model for successful collaboration between libraries and museums, but also a resource of value to learning communities.

**Project phases:** The project will be undertaken in three overlapping phases: 1) an analysis and planning phase in months 1-4 during which partners will analyze issues and draft key documents, evaluate specifics of cataloging and OAI development needed at partner sites, and plan programming work; 2) a primary implementation phase in months 5-8 when software will be deployed and cataloging will take place at partner sites, as well as document drafting, and initial dissemination activities; and 3) a completion phase in months 9-12, including: assessment activities, work with additional participants recruited, and documentation revision and completion work. Details of all project steps associated with the schedule of completion may be found in Appendix C: Project Activities.

## **SECTION 4: MANAGEMENT PLAN**

A variety of institutional characteristics make Emory University uniquely suited to undertake this project. A combination of relevant experience in similar projects, institutional priorities, and infrastructure give Emory the capability to successfully carry out the proposed project activities.

***Institutional Preparation:*** Emory University is well prepared to host the Music of Social Change project, having undertaken several other grant-funded digital leadership projects. Most recently Emory University General Libraries received \$590K in research awards from the Andrew W. Mellon Foundation, representing two of the seven projects funded by the Foundation to advance understanding and usage of the Open Archives Initiative Protocol for Metadata Harvesting [Waters, 2001]. These projects, collectively termed the MetaScholar Initiative, work solely through open source software tools and have prepared Emory, as an institution, for the next steps in the national advancement of digital library technologies.

***Institutional Priorities:*** In terms of priorities, the first strategic direction of the Emory University General Libraries is to be a leader in electronic resources and services through innovative programs, projects, and partnerships. Emory University has consequently sought to actively foster and advance leadership for the future of librarianship in a variety of programs that seek to produce catalytic change. One major example is the Frye Leadership Institute [see <http://www.fryeinstitute.org> as well as Marmion, 2002], a national program to cultivate the next generation of library and information technology leaders. Hosted each year by Emory, the Frye Institute is sponsored by the Council on Library and Information Resources, Educause, and the Robert W. Woodruff Foundation.

***Software Development Experience:*** Emory is also well situated to undertake the development of new open source software development, having already developed and released the Course/Control Reserves Management System (may be found at <http://sourceforge.net/projects/coursecontrol/>), as well as regularly hosting open source events such as the LITA Preconference “Working with Open Source Software,” held as part of ALA Annual 2002. Finally, the MetaScholar Initiative contributed greatly to the release of the open source version of ARC, the premier tool for OAI-PMH metadata harvesting (see <http://oaiarc.sourceforge.net>). Through these and other projects, Emory Library personnel have gained a thorough understanding of the challenges associated with digital library projects and are well prepared to develop the software proposed in this project. Their successful completion of related projects demonstrates the ability of the proposed project staff to complete projects on time and within budget.

***Supporting Infrastructure:*** The Emory University Libraries possess a robust Systems Division of 14 system administrators and programmers who maintain more than 36 servers and hundreds of public access computers in support of services provided to the campus. These personnel and systems provide a pool of resources that will be drawn upon for ad hoc purposes in support of the Music of Social Change project. The strong supporting infrastructure of Emory University will contribute significantly to the success of the project.

## **SECTION 5: BUDGET**

The project budget primarily includes funding for staff and travel, as these are the two critical factors that will enable this project to be successful. Emory will contribute substantially to the project, providing more than half the required funding.

***Staff:*** The largest part of the budget is for personnel lines. Experience gained in the MetaScholar Initiative forms the basis for allocating staff time to program the OAI provider systems, as well as for developing the collaborative model, assessing the outcomes, and project oversight. Salaries are calculated using known figures from current MetaScholar staff.

***Travel:*** A collaborative project such as this will require bringing museum and library professionals together for a range of project activities. Museum directors, curators, catalogers, and technologists will come together for the analysis phase of the project. The research fellow, programmers, and librarians will visit

museums to assess, catalog, and set up OAI systems. Travel expenses have been calculated based on average figures from actual trips and meetings hosted at Emory in the past.

## **SECTION 6: CONTRIBUTIONS**

Emory University will contribute more than half of the project budget through a combination of direct and indirect cost sharing. Emory is deeply committed to advancing the understanding of OAI-based collaborations among many different kinds of institutions. In support of this project, Emory will commit a research fellowship, permanent staff time, and various indirect costs (cubicle space, phone services, and other basic staff needs) through a percentage of overhead waived. Exact amounts of cash match and in-kind contributions are detailed in the project budget.

Museum partners will contribute significant but unspecified staff time to the project through participating in project meetings to develop the Collaborative Model, deploy OAI data provider systems for their metadata collections, and other project activities as specified in Appendix C.

## **SECTION 7: PERSONNEL**

Martin Halbert has been Director for Library Systems at the Emory University General Libraries since 1996, and has relevant experience in collection development and as a reference librarian (resume is included in this grant application). He is currently principal investigator and executive director for the projects of the MetaScholar Initiative. A recognized authority on metadata harvesting services, he has spoken on the topic at a number of national and international conferences. He will devote significant time to supervising the project.

Susan Bailey is Director for Bibliographic Gateway Services at the Emory University General Libraries, and oversees all cataloging activities. She has been a key internal advisor concerning metadata issues in the MetaScholar Initiative since its inception.

Katherine Skinner is a doctoral candidate at Emory University, whose research focuses specifically on the relationship between music and social change movements. She has worked as project manager for the MetaScholar Initiative and helped develop the model for metadata aggregation and scholarly contextualization that MetaScholar has pioneered. As a recipient of the Robert W. Woodruff research fellowship, she will work exclusively on the Music of Social Change project for the duration of the year-long fellowship.

Jiann Ming-Su has from the beginning been the system administrator and programmer for the AmericanSouth.Org project, and he will be available to serve as project programmer for the project. He has been responsible for installing many OAI data provider systems and is well versed in the technology of the protocol.

Dr. Charles Reagan Wilson is the Director of the Center for the Study of Southern Culture at the University of Mississippi, editor of the Encyclopedia of Southern Culture, and a long-time participant in the AmericanSouth.Org project. Dr. Wilson will assist in several ways, chiefly by providing perspective as a museum director, as a scholar of social change movements, and as one knowledgeable in learning communities.

Dr. Allen Tullos is associate professor at the Emory University Graduate Institute for the Liberal Arts and leads the AmericanRoutes.com project in online scholarship on the topic of music and social change movements. He has been a key advisor for the AmericanSouth.Org project, and is a long-time collaborator with both Halbert and Skinner. Dr. Tullos will assist with the research content and intellectual organization of services modeled in the project. Tullos will also directly contribute to the contextualizing articles prepared for this project, and provide advice concerning the design of the system for utility by learning communities.

## **SECTION 8: PROJECT EVALUATION**

The Music of Social Change project will use outcome-based evaluation to assess the positive effects of the project on people and consequently the degree of project success. The project will use the following completion and success criteria.

**Completion Criteria:** The following criteria must be accomplished to complete project work:

- A. All tools proposed in Section 2 (Adaptability) must be completed.
- B. All cataloging activities requested by partners must be completed.
- C. All OAI providers at partner institutions must be functioning in an OAI compliant manner as verified against the OAI Explorer certification tool developed by the Virginia Tech Digital Library Research Lab.
- D. All metadata produced as part of the project must be searchable in the AmericanSouth.Org system
- E. All contextual content developed by the Research Fellow must be uploaded to the AmericanSouth.Org content management system.

**Success Criteria:** The following criteria will gauge project success. These quantitative and qualitative metrics will be used to directly assess whether or not the project accomplished each of its three outcomes. Assessments of project success criteria will take place in the third project phase.

### Outcome 1: Collaboration between libraries and museums will be improved.

*Success Metric #1a: Partner Assessment:* All project partners must conclude that the project enhanced their services to their clientele, as assessed in a meeting held in the third phase of the project. The meeting will be conducted as a focus group to study the question of service enhancement.

*Success Metric #1b: Additional Institutions Attracted.* After the analysis and planning phase, the project team will approach additional institutions concerning collaborative participation in the project and provide copies of the draft Collaborative Model and other project documents. Consortia that will be approached include the national Music Museum Alliance and the Association of Southeastern Research Libraries (ASERL). To the extent that the Collaborative Model and other documents attract further collaborative partners, this project outcome will be judged a success.

### Outcome 2: Shared cataloging services based on OAI will be enabled for libraries and museums.

*Success Metric 2a: Retrospective Conversion Enabled.* Success gauged by the degree to which the project enables the retrospective conversion of print records into online forms, in a manner which all parties involved judge efficient, scalable, and useful. This assessment will be undertaken as part of the partner assessment meeting described above.

*Success Metric #2b: Item Level Metadata Generated.* Success gauged by the degree to which the project enables item level metadata to be disseminated, providing details about collections for learning communities, in a manner which all parties involved judge efficient, scalable, and useful. Assessment will be undertaken during partner assessment meeting.

*Success Metric #2c: Authority Control Enhanced.* Success gauged by the degree to which the project successfully provides authority control for metadata generated, enhancing browsability for learning communities, in a manner which all parties involved judge efficient, scalable, and useful. Assessment will be undertaken during partner assessment meeting.

Outcome 3: Public access to collections will be improved.

*Success Metric #3a: Number of OAI data providers deployed.* Success gauged by the number of correctly functioning OAI providers the project deploys among partners.

*Success Metric #3b: Number of metadata records aggregated.* Success gauged by the number of metadata records that are harvested and made searchable in the AmericanSouth.Org portal.

*Success Metric #3c: Number of OAI data providers harvested by other national OAI aggregators.* Success gauged by number of project data providers harvested by OAIster.

## **SECTION 9: DISSEMINATION**

The project team will widely disseminate the Collaborative Model. The dissemination plan for the project includes several strategies:

- A. Conference presentations will be given on the project and its products. Some of the professional meetings that are possible venues include the following: the 2004 Museums and the Web Conference, the 2004 Emory Institute for the Liberal Arts Conference, the Spring 2004 meeting of the Digital Library Federation (DLF), the 2004 LITA National Forum, and the 2004 Access Conference in Canada. These presentations will increase public and scholarly awareness of the project and provide an additional forum for garnering feedback concerning the software and deployment model. Details as to what project milestones will be reported at each of these conferences may be found in *Appendix C: Project Activities*.
- B. Information concerning the Music of Social Change project and the Collaborative Model will be disseminated through MetaScholar activities, such as project meetings of the AmericanSouth Scholarly Design Team and future MetaScholar project meetings hosted at Emory University and elsewhere.
- C. The Collaborative Model will be published in the form of at least one journal article. This submission will be made at some point before the end of the project, and an estimated publication date for the article will be included in the final project report.

## **SECTION 10: SUSTAINABILITY**

The MetaScholar Initiative has extensively investigated the sustainability of digital library systems and collaborative arrangements and is committed to maintaining and cultivating such cooperative endeavors over time. To ensure the benefits of this project extend to multiple institutions well beyond the grant period, Emory will develop and disseminate a detailed model for library-museum collaborations, with documents and tools to facilitate its replication. In addition, the Music of Social Change archive will be broadly accessible and easily updated, thus extending its long-term use to a range of academic communities and independent learners. Finally, Emory University has contributed substantially to this initiative in the past, and will continue to invest in this project and other related endeavors in the future. Emory is committed to innovation in the area of electronic resources and services and to maintaining leadership in this field in the 21<sup>st</sup> century. To remain relevant to the learning communities they serve, research libraries and museums must engage in sustained efforts to facilitate and lead change.

### SCHEDULE OF COMPLETION

		Fall 2003				Spring 2004				Summer 2004				Fall 2004			
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>ACTIVITIES</b>																	
Phase 1	1 Administrative preparation	█															
	2 Cataloging/OAI assessment for partners		█	█													
	3 Prep for cataloging/OAI implementations				█	█											
	4 Initial Analysis Meetings		█	█	█												
	5 Document drafts written		█	█	█												
	6 Contact additional potential participants		█	█	█												
	7 Draft contextual articles		█	█	█												
	8 Drafts of Model and Guidelines completed					◇											
Phase 2	9 Decisions on additional participants						█	█	█								
	10 Guide to OAI Research drafted						█	█	█								
	11 Contextual articles finalized						█	█	█								
	12 Mid-point perf report to IMLS						█	█	█								
	13 Desktop OAI provider developed						█	█	█								
	14 Cataloging at partner sites						█	█	█								
	15 OAI data providers installed for partners						█	█	█								
	16 Presentations and/or publications								▪	▪							
	17 Training packet prepared								█	█							
	18 Cataloging/OAI assessment for addtl participants								█	█							
Phase 3	19 All project products drafted								◇								
	20 All key project documents revised w/ feedback									█	█	█					
	21 Partner assessment meeting										█	█					
	22 Training provided at selected sites										█	█	█				
	23 Cataloging at additional participant sites										█	█	█				
	24 Final OAI data providers installed										█	█	█				
	25 Write up final report												█	█			
	26 Assessment of all remaining metrics												█	█			
	27 All project products complete													◇			
	28 Presentations and/or publications														█		
	29 Final Project Report submitted, project wrap														█		
	30 Final financials upon close														█		

Project Months

1 2 3 4 5 6 7 8 9 10 11 12

**SCHEDULE LEGEND:**

- Programming, Cataloging, Training = █
- Planning, Assessment, Documentation = █
- Milestone = ◇
- Presentation opportunity = ▪

**Possible presentations:**

- 2004 Museums & the Web Conf (Apr)
- 2004 Emory ILA Conference (Apr)
- Spring 2004 DLF Forum (May)
- Access 2004 (Oct)
- LITA 2004 (Oct)

# APPENDICES

## APPENDIX A: Bibliography

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## APPENDIX B: Overview of the MetaScholar Initiative

### Summary

The MetaScholar Initiative is a collaborative endeavor to explore the feasibility and utility of scholarly portal services developed in conjunction with OAI metadata harvesting technologies. The MetaScholar Initiative is comprised of two projects, the MetaArchive and AmericanSouth projects, both funded by grants from the Andrew W. Mellon Foundation totaling \$600K. These two projects have created two metadata aggregation networks connecting some 24 libraries, archives, museums, and electronic text centers. Each network has an associated portal being created under the guidance of teams composed of scholars, librarians, archivists, and technologists. The MetaScholar Initiative is studying issues such as metadata normalization, alternative forms of scholarly communication through portals, and the process of facilitating smaller archival institutions in providing better access to their collections through the OAI-PMH. The MetaScholar Initiative is based at Emory University in Atlanta, Georgia.

### MetaArchive Project

A consortium of educational libraries, archives, and museums led by Emory University is undertaking a demonstration project and feasibility study for a cross-institutional scholarly portal service providing public search functionality and subject organization for archival metadata aggregated using the OAI-PMH. The project arose from the belief that OAI-based services for researchers must do more than simply aggregate metadata. To be effective tools for research, there must be framing organization, contextual materials, and other sorts of information that add value to the basic functions of metadata aggregation and search. Further, a great advantage of such services is that they might fruitfully be focused on specific subject domains in order to concentrate and leverage attention and knowledge that subject specialists contribute to online gathering spaces. This perspective applies accumulated lessons from decades of online community research to the new opportunities provided by metadata harvesting technologies.

The project set out to actively aggregate metadata by providing partner institutions with direct assistance in the form of data conversion expertise and programming of OAI provider systems. The project would seek to convert and import existing metadata, in the form of finding aids, catalog records, or other machine-readable forms. Typical partner institutions are archives of four-year liberal arts colleges, which frequently have only one archivist and lack technical staff or infrastructure for sharing metadata via the OAI-PMH. This category of smaller archive was a major focus because there are a very large number of such repositories that collectively hold information of great interest for scholarly research, but for which there are inadequate mechanisms for cross-institutional discovery of resources, as evidenced by the case studies described above. For perspective on the issues of catalyzing metadata provision through the OAI-PMH in other sorts of institutions, the project also sought to work with a small number of larger archives in research universities and museums. It was anticipated that this activity of metadata aggregation would go on throughout the duration of the project, as some sites would be relatively easy and others would take more time. **MetaArchive partner institutions** include: Southwestern University, the United Methodist Archives, the Atlanta History Center museum, the University of the South, Davidson College, Washington & Lee University, the University of Richmond, and sub-units of Emory University and the University of Georgia.

The **MetaArchive Subject Portal Working Group** (SPWG) has extensively considered the question of how aggregated metadata can be made coherent and useful to scholars. The group is comprised of librarians and archivists at Emory University with doctoral level subject qualifications and extensive experience in the field. The group is studying various design questions concerning scholarly portals and metadata services. Participants include: Linda Matthews (Special Collections Director), Susan Bailey (Bibliographic Gateway Service Division Leader), Raquel Cogell (Research and Information Services Team Leader), Randall Burkett (Ph. D. Religion, Archivist, Special Collections), Steven Ennis

(Ph. D. English, Curator of Literary Collections, Special Collections), Joel Herndon (Ph.D. Political Science, Head, Electronic Data Center), Alice Hickcox (Ph.D. Religion, Lewis H. Beck Electronic Text Center), Naomi Nelson (Ph.D. History, Congressional Archivist, Special Collections) Marie Nitschke (Ph. D. History, Reference Librarian), Susan Pinckard, General Libraries Monographic Cataloging Team Leader), Charles Spornick (Ph.D. Medieval History, Head, Lewis H. Beck Electronic Text Center).

### **AmericanSouth Project**

The AmericanSouth project seeks to create a definitive scholarly portal for Southern history and culture. The project is the result of an extended planning effort by SOLINET. The project is similar in many ways to the MetaArchive project in that it proposed layering portal services on top of a central metadata harvester that would aggregate information from cooperating partner libraries. A team of senior researchers (rather than librarians or archivists) serves as the Scholarly Design Team for the project (see below) providing the intellectual organization for this scholarly portal, designing an interactive structure to promote and facilitate research, teaching, and communication.

AmericanSouth seeks to establish OAI provider systems at large research libraries situated around the Southeast. The goal is to create an extensive base of information useful for Southern cultural studies by aggregating metadata from many important archival collections held by ten **AmericanSouth partner institutions**: Auburn University, Emory University, Louisiana State University, the University of Florida, the University of Georgia, the University of Kentucky, the Kentucky Virtual Library, the University of North Carolina at Chapel Hill, the University of Tennessee at Knoxville, and Vanderbilt University. Large research libraries were selected that had significant technical staff and infrastructures capable of installing and maintaining their own OAI provider systems, at least provided that they received a certain level of catalytic assistance by expert OAI consultants. These consultants include computer scientists from Virginia Tech who are participating in the core design work of the OAI protocol.

The design of the AmericanSouth.Org portal is guided by a **Scholarly Design Team** (SDT) of five major scholars of Southern culture and history who have been recruited to think systematically about the issues entailed in such a system. What are the requirements for an authoritative online portal for scholars? What new forms of scholarly discourse are facilitated by an online community built in close proximity to organized metadata concerning primary research materials? How can contextual functions such as annotation, interpretation, and methodological/pedagogical guides be contributed for such metadata aggregation services? In directly recruiting a team of major scholars to work on the project, AmericanSouth.Org is unlike many other such projects, which are primarily driven by technologists. The project team has consistently felt that this scholarly involvement represents a significant strength of the project.

AmericanSouth.Org is fortunate in that from the beginning the project proposal identified Dr. Charles Reagan Wilson as chair of the SDT. Dr. Wilson is a noted scholar of the South and a capable academic leader of collaborative activities. As the primary editor of *The Encyclopedia of Southern Culture* (perhaps the pre-eminent comprehensive guide to scholarship in this area), and director of the Center for the Study of Southern Culture at Ole Miss, Dr. Wilson is well suited academically and professionally for the role he has been called upon to play. His insights and advice have from the start been invaluable, and he has been a true partner in conceptualizing the services that AmericanSouth.Org might provide.

Dr. Allen Tullos of Emory University is an interdisciplinary scholar engaged in many research areas, including American popular culture, the South, cultural geography, and the effects of networked information on society. He is noted for developing the *American Routes* public scholarship site (see <http://amroutes.cc.emory.edu>), a collaborative linkage between an instructional website at Emory and one of the most popular nationally syndicated radio programs.

Dr. Will Thomas of the University of Virginia is one of the developers of the Valley of the Shadow website (<http://www.iath.virginia.edu/vshadow2>). As one of the pioneers in new forms of online historical

scholarship, Dr. Thomas brings to the project years of experience and perspective concerning the possibilities of the new medium.

Dr. Lucinda MacKethan of North Carolina State University was co-editor of the comprehensive *Companion to Southern Literature*, as well as the *Scribbling Women* teaching website (see <http://www.scribblingwomen.org>). Dr. MacKethan brings to the project a variety of expertise to the project including comparative literature, gender issues in scholarship, and pedagogy of new media.

Dr. Carole Merritt is Director of the Herndon Home (<http://www.theherndonhome.org>), a national historic landmark memorial site celebrating the heritage of African Americans in the South. Dr. Merritt is a respected scholar of African American family history and culture. She speaks authoritatively to several issues, including public scholarship and African American culture.

## APPENDIX C: Project Activities

### Phase One: Analysis and Planning (Months 1-4)

1. Administrative preparation: September 2003. Upon notification from IMLS that the grant has been awarded, several administrative steps will be taken. A fund code for tracking all project expenditures will be set up, and the award funding will be deposited into it. Katherine Skinner will be notified as she begins her research fellowship and will begin preparing for the project. Project partners will be notified and initial meetings will be scheduled. Deadlines for conferences will be identified for project results dissemination (step #16 below), and proposals for such presentations will be drafted.
2. Cataloging/OAI needs assessment: October – November 2003. Emory University catalogers will work with museum partner staffs and the research fellow to assess cataloging and OAI data provider needs at partner sites. This phase will include an assessment of the collections, technical infrastructure available at the partner sites for data export, transmitting, and collating existing collection records from partners. These records will be assessed for metadata normalization issues, as well as assessing what collection areas would benefit from additional cataloging. Catalogers and the research fellow will also work with the Emory Special Collections department to identify specific Emory collections that complement the subject domain.
3. Preparations for cataloging activities and OAI data provider implementations: December 2003 – January 2004. Emory catalogers and the research fellow will make several preparations during this intersession period. Information regarding partner records and technical infrastructures will be collated and specific plans for work in coming weeks will be prepared. Planning will be coordinated with the project programmer, Jiann-Ming Su, who will at this point be wrapping up his official responsibilities on the 2003 AmericanSouth project activities, and will be available for consultation and planning on the Music of Social Change project.
4. Initial analysis meetings: October – December 2003. Project partners will meet to conduct the analysis work that will lead to the documented Collaborative Model. These will be a combination of in-person sessions held at Emory University and conference call meetings. Sections to be developed systematically include: scenarios and benefits of implementing collaborative OAI systems in museums and libraries, a process map for planning such projects, a discussion of roles and responsibilities key to successful collaborations, a discussion of differences and similarities between library and museum metadata practice (especially as relates to the OAI protocol), and a section on technical implementation and software resources. Catalogers will take part in these meetings to begin developing the Guidelines for Shared OAI Cataloging Practice document.
5. Working drafts written of Collaborative Model and Guidelines: October 2003 – January 2004. These two key documents will be drafted in this period using the results of the analysis step. The primary writers are Halbert, Bailey, and Skinner.
6. Contacting additional potential participants: October – December 2003. As working drafts of sections of the Collaborative Model and Guidelines are produced, discussions will be initiated with additional potential participants. A mix of different institutions with germane collections has been identified as potential participants to attempt recruiting (see Appendix D: Additional Potential Participants) using the Model and Guidelines. During these discussions the potential participants will be briefed on the aims and current status of the project work, with opportunity for Q&A. The intent is that potential participants will be sufficiently informed and prepared that they can make a timely decision concerning participation once the working Model and Guidelines documents are in their hands.

7. Draft contextual articles: October – December 2003. Skinner will begin writing the contextual articles for the project during this period, based on information gained about collections conducted in October and November. She will be assisted by Dr. Tullos and Dr. Wilson. The goal here is to begin preparing an effective framework for independent learners to understand and use the metadata resources aggregated and indexed by the harvesting system. Research and pedagogical aspects of the subject domain will be addressed.
8. (Milestone) Working drafts of Collaborative Model and Cataloging Guidelines completed: January 2004. Complete working drafts of the Collaborative Model and Guidelines for Shared Cataloging/OAI Practice will be completed by the end of January 2004. These documents will be distributed to the additional potential participants to initiate the discussion with them as to which additional sites will be recruited to participate in the remainder of the project.

### **Phase Two: Implementation (Months 5-8)**

9. Decisions on additional participants: February – April 2004. During this period a final list of additional project participants will be prepared. This is a key metric of success for the project: gauging how effective the Model and Guidelines are in recruiting additional collaborative participants.
10. Guide to OAI Research drafted: February – April 2004. The research fellow will prepare a draft of this document in this period. A goal of this document is a clear explanation of how independent learners can use OAI discovery systems for research in multiple fields of research. Practical examples will be given. This document may be subsequently submitted for publication.
11. Contextual articles finalized: February – April 2004. The research fellow will finalize these contextualizing documents during this period.
12. Mid-point performance report to IMLS: March 2004. The six-month performance report will be submitted at this time. Several results will be discussed, including the results of the analysis phase, the draft Model, Guidelines, and prospects for dissemination at upcoming professional meetings.
13. Desktop cataloging OAI data provider developed: February – April 2004. The first task of the programmer will be to develop a software add-on package that will enable PCs with desktop database management systems such as Microsoft Access to function as cataloging stations capable of sharing and disseminating records via the OAI protocol. This tool will be aimed at filling a gap identified in the MetaScholar Initiative, specifically the need for OAI-enabled database tools usable by small archives and/or museums for tracking and cataloging collections. It will be released as an open-source software package via SourceForge.Net.
14. Cataloging at partner sites: February – May 2004. Emory catalogers will work during this period to produce cataloging records suitable for OAI data providers at the partner sites. Important tasks will be to give the Cataloging Guidelines document a thorough testing, ensure that metadata is both compliant with OAI requirements as well as acceptable to partner staffs, and furthers metrics described in *Section 8: Project Evaluation* for project outcome #2.
15. OAI data providers installed for partners: February – May 2004. Depending on the infrastructures of the various partners, the records produced by the catalogers may be deployed in OAI data providers as either 1) Perl or other web scripts or 2) using the newly developed desktop cataloging OAI data provider tool.
16. Presentations and/or publications: April – May 2004. Several opportunities for project results dissemination occur during this period. The *2004 Museums and the Web* conference will be a prime opportunity for sharing project information with the museum community. The *2004 Emory*

*Institute for the Liberal Arts* annual conference will be an opportunity to share information about the project with scholars and independent learners interested in the topical area. Finally, the *Spring 2004 Forum of the Digital Library Federation* is a key venue for sharing information among the national leadership of digital library projects. These venues will be important for both disseminating results and getting feedback from peers on approaches the project is taking.

17. Training packet prepared: April – May 2004. The training packet that organizes the key project documents for training purposes will be developed during this period. The primary writers are Halbert, Bailey, and Skinner.
18. Cataloging/OAI assessment for additional participants: April – May 2004. An assessment equivalent to the October-November 2003 activity for core partners will be undertaken for the new participants added to the project in February-April 2004.
19. (Milestone) All project products drafted: May 2004. By this point working drafts of all key project products will have been completed. After this point the goal will be to refine and finalize these products with feedback from project partners and additional participants.

### **Phase Three: Assessments and Completion (Months 9-12)**

20. All key project products revised w/ feedback: June – August 2004. As the project staff receives feedback from partners and new participants regarding the core project products these documents and software tools will be revised for better usability.
21. Partner assessment meeting: July 2004. This is a key assessment activity. Project partners will engage in a focus group methodology to candidly assess whether or not the project succeeded in several metrics described in *Section 8: Project Evaluation*. Attending this meeting will be all partner museum principals as well as additional museum professionals. The findings will be collated and written up for inclusion in the final project report to IMLS.
22. Training provided at selected sites: June – July 2004. The training packet will be tested at selected sites during this period. Training will be conducted for all the project products, both documents and software. Training will be provided by a combination of the principal investigator, research fellow, catalogers, and programmer.
23. Cataloging at additional participant sites: June – August 2004. Cataloging efforts equivalent to those undertaken with partners will take place during this period with new participants.
24. Final OAI data providers installed: June – September 2004. All remaining OAI data provider systems (whether scripts or desktop application) will be deployed during this period.
25. Write up final report: August – September 2004. The final report will include many sections and will take a significant amount of time to assemble. Preparing it during this period will allocate sufficient time for this process.
26. Assessment of all remaining metrics: August – September 2004. All remaining metrics from *Section 8: Project Evaluation* that have not yet been assessed will be tabulated and written up during this period.
27. (Milestone) All project products complete: September 2004. Final versions of all project documents and tools will be completed at this time.

28. Presentations and/or publications: October 2004. Two conferences held during this month provide an opportunity for presentations about final project results: the international *Access 2004* conference held in Canada, and the *2004 LITA National Forum*.
29. Final Project Report submitted, project wrap: October 2004. The final project report will be submitted to IMLS upon project completion.
30. Final financials upon close: October 2004. When all financial activity is concluded in October the books will be closed and the final financials will be tabulated and sent to IMLS.

## **APPENDIX D: Additional Potential Project Participants**

The following institutions have been identified as potential institutions to approach for participation in the second half of the project. They represent a cross section of different institutional types (museums, libraries, and archives), which provide an appropriate mix to attempt deploying the project Collaborative Model and Cataloging Guidelines. Some are components of very large institutions, and some are small standalone institutions. They all have collections relevant to the subject domain of the project.

1. Alabama Music Hall of Fame
2. Alabama Folklife Program
3. Center For Black Music Research, Columbia College
4. Birmingham Civil Rights Institute
5. Highlander Research and Education Center
6. NAACP Henry Lee Moon Library & Civil Rights Archives
7. The National Civil Rights Museum
8. Ralph Mark Gilbert Civil Rights Museum (Savannah)
9. Smithsonian Folkways
10. The Stax Museum of American Soul Music
11. University of North Carolina at Chapel Hill Southern Folklife Collection
12. Wisconsin State Historical Archives