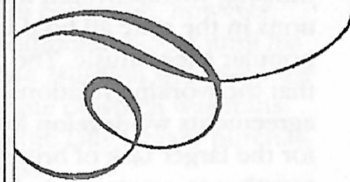


**IN HARMONY: SHEET MUSIC FROM
INDIANA: A COLLABORATIVE
DIGITAL LIBRARY PROJECT**

by Kristine Brancolini & Stacy Kowalczyk



In October 2004, the Indiana University Digital Library Program received a grant from the Institute of Museum and Library Services to fund *IN Harmony: Sheet Music from Indiana* (see the project website at <http://www.dlib.indiana.edu/projects/inharmony/>). This is a three-year project to catalog and digitize sheet music from the collections of four partner institutions, Indiana University's Lilly Library, the Indiana State Museum, the Indiana Historical Society, and the Indiana State Library (for descriptions of these collections, please see Appendix 1). The purpose of the project is to create an online sheet music collection that will demonstrate how museums and libraries with complementary materials can work cooperatively to create shared digital resources. By concentrating initially on the collections of American sheet music owned by each of the partners, the project will accomplish two highly adaptable goals: 1) it will demonstrate how approximately 10,000 digitized pieces of sheet music and their attendant metadata can be presented on a single website, offering federated searching of all collections or access to one or more selected collections; and 2) it will demonstrate how collaborative digital library development can provide online access to the important regional collections of museums, libraries, and historical societies. These collections may, in fact, be sheet music, or they may be important materials in other formats, such as photographs, maps, manuscripts, or artifacts.

The *IN Harmony Project* builds upon three years of work at Indiana University to digitize sheet music (see the website at <http://www.letrs.indiana.edu/s/sheetmusic/>) and to contribute to the Sheet Music Consortium (see the Web site at <http://digital.library.ucla.edu/sheetmusic/>), a metadata harvesting service that provides aggregated access to sheet music collections from seven libraries. The Indiana University Sheet Music site provides bibliographic records for approximately 25,000 pieces of sheet music from the Lilly Library's DeVincent Sheet Music Collection and the Starr Sheet Music Collection and digital copies of approximately 7,000 pieces of sheet music from these collections.

With its broad popular appeal and established research value, sheet music provides an ideal subject matter for this project. Cover designs and lyrics offer glimpses of American history and culture in an engaging, entertaining format. Sheet music has also been used by musicologists as an invaluable resource for the study of musical practices, structures, and meanings. Consequently, many libraries, archives, and museums across the country have begun digitizing their sheet music collections and providing access to them on the Web. This project will be the first library-museum partnership to digitize and create metadata for sheet music. However, it will also extend into important areas related to this work in any setting, specifically, the creation, mapping, and enhancement of metadata and copyright. The project will establish recommendations on descriptive metadata records for sheet music and will test the suitability of various subject schemas for searching. Knowledge gained from this undertaking, therefore, will guide other institutions as they digitize and improve access to their own online collections.

Key to the success of this project will be to identify ways in which different institutions with different practices can coordinate their efforts to achieve shared goals. One of the biggest obstacles to reliable retrieval of online collections is inconsistency in the ways collections are described. Library materials, for example, may be cataloged by a librarian according to widely accepted MARC bibliographic standards while museum items may be described by a curator according to the specific needs of the institution in a local database or collection management system. As a result of this project, we will provide recommendations on mapping from existing metadata schema (that is, how materials are currently described) to an interoperable metadata standard, probably based on some form of Dublin Core.

This project not only builds on the strengths of the partners' sheet music collections, but it also leverages the groundwork for statewide digital library planning that was begun by the Indiana State Library in 2003, called The Digital Library Summit (see the website at <http://www.statelib.lib.in.us/www/isl/diglibin/>). The idea

for the *IN Harmony* site, which will appeal to both scholars and the general public, grew from this recent planning for digital library development in the state of Indiana; we discovered that four major public institutions in the state all hold important collections of popular sheet music. The project partners anticipate that the working relationships and eventual written agreements we develop for this project will prepare us for the larger task of bringing many more partners together to create the Indiana Digital Library.

For *IN Harmony: Sheet Music from Indiana* we will digitize all Indiana-related sheet music in our collections — composer, arranger, publisher, or subject — and then select additional pieces by genre or theme, based upon recommendations of librarians and subject specialists. We plan to digitize approximately 2,000 pieces of sheet music each from the Indiana State Library, the Indiana State Museum, and the Indiana Historical Society, and 4,000 pieces from the Lilly Library at Indiana University. We will also create and enhance metadata for this sheet music, based upon the specific needs of each partner. The specific project goals are:

- To provide a mode for fostering collaborative digital library development by partnering with institutions with complementary collections;
- To digitize a portion of the sheet music from these collections and offer access to these materials free of charge on the Web;
- To bring these materials and their attendant metadata together on a single website, offering both federated searching of the entire collection and searching of one or more selected collections;
- To explore copyright questions, specifically to test the hypothesis that approximately 90 percent of copyrights have not been renewed for materials published between 1923 and 1964.

Users of digitized sheet music are often hampered by copyright restrictions. Due to uncertainties about the copyright status of a particular piece of sheet music, most online collections only display works published before 1923. For example, The Lester Levy Sheet Music Collection (see the website at <http://levysheetmusic.mse.jhu.edu/>) at Johns Hopkins University and the Maine Sheet Music Project (see the website at <http://www.library.umaine.edu/friends/otree/otv11n2/musicbox.htm>) both follow this practice. However, copyright for works published between 1923 and 1964 had to be renewed in the 28th year. Based upon a study conducted by the U.S. Copyright Office, many copyright experts believe that approximately 90% of copyrights for materials published between 1923 and 1964 were never renewed (Demas, 1997). Attorney Stephen Fishman reports an overall renewal figure of

15%, but 35% for music (2001). Famous works were probably renewed but works by obscure composers had probably lost their commercial value within 27 years and, thus, were allowed to pass into the public domain. New arrangements of older works also serve to complicate the situation.

For this phase of the project, a graduate student in the joint JD/MLS program, working with associate university legal counsel at Indiana University, will be conducting copyright research in order to determine whether the sheet music selected from after 1923 is still covered by copyright. We will display digitized sheet music for every work determined to be in the public domain. We will also seek permission for works still covered by copyright in order to determine if this is a feasible alternative. We want to provide access to as much digitized sheet music from these collections as possible.

PROJECT UPDATE

The four project goals have a set of deliverables scheduled over the three years of the project. As we come to the end of the first year, we can report that we have either completed or have made significant progress on all of the first year tasks.

1. *Hiring Project staff.* Two half-time staff, a project manager, and a software developer were hired.
2. *Project website.* Communication is the key to successful partnerships. To facilitate communication, we created an *IN Harmony* project website which provides a stable location for project documentation. For more information about all of the deliverables, please look at the documentation section of the website at <http://www.dlib.indiana.edu/projects/inharmony/>.
3. *Usability studies.* To inform the analysis of both the metadata analysis and the searching user interfaces, the *IN Harmony* project examined the search patterns from existing sheet music websites, reviewed email reference questions about sheet music, and tested users' abilities to differentiate between music subject categories. These three usability studies provided invaluable insights into researchers' needs that will be incorporated into the new systems.
4. *A standard for sheet music metadata.* The partners have worked hard to develop a metadata model that should provide excellent access to the materials and be efficient to create. After some additional testing, we will register the metadata model with the Library of Congress as a Metadata Object Description Schema (MODS) extension (see the website at <http://www.loc.gov/standards/mods/registry.html>).

5. *A set of tools for controlling the scanning process and creating metadata for the materials.* These software products are the major deliverables of this first year of the project. A fuller discussion of these tools is below.

The *IN Harmony* project is based on a distributed and cooperative model. Both the cataloging and the digitization will be done at the institution of ownership. Distributed projects have special requirements to insure that the systems are able to accommodate the workflows of the individual institutions as well as produce a uniform set of metadata records and digital images that allows researchers to find what they need, so the software must allow for flexible workflows with integrated quality control, both for the metadata and the digital images. The cataloging tool will provide a simple editing interface with controlled vocabularies for contributors and subjects. The scanning control tool will provide automated quality control of the images as well as an interface for manual quality control. The system will validate the technical aspects of the image and people will validate the aesthetics of the image. The system will automatically link the image to the metadata record. While the data is created in a distributed workflow, the data will reside on a central server in the Indiana University Bloomington data center.

Digital library development requires the collaborative effort of many individuals with a wide range of expertise. Librarians who work in the area of digital libraries recognize there is much work to be done and that by working together we can produce online resources that will meet the needs of our users more effectively than if we work alone. Collaboration enables us to leverage the diversity of skill and knowledge that individuals have developed within the partner institutions. That is the overarching goal of *IN Harmony*. It is a metaphor for the creation of the Indiana Digital Library. This project will not only create a rich online resource for the citizens of Indiana, and beyond, through Internet access, we hope it will teach how to forge strong partnerships across different types of cultural heritage institutions leading to more projects among Indiana University, the Indiana State Library, the Indiana State Museum, and the Indiana Historical Society, and with new partners across Indiana.

APPENDIX 1

DESCRIPTIONS OF THE SHEET MUSIC COLLECTIONS

All four institutions have important sheet music collections, as described below. Three of them include materials from the collection of Sam DeVincent, an Indiana personality who worked variously as a performer, disc jockey, music librarian, and music director at a Fort Wayne, Indiana, radio station. DeVincent

collected sheet music for the artistry of the covers as well as for the music, and in 1988 donated an impressive collection of about 130,000 pieces to the Smithsonian Institution. He retained duplicates of some of the pieces in the Smithsonian collection, however, and he continued to acquire additional pieces until his death in 1997. The Indiana State Museum was given his Indiana-related sheet music, some of which was transferred to the State Library with the Lilly Library purchasing the remaining 24,000 pieces.

The Indiana State Library Indiana Division owns a collection of approximately 1,600 pieces of sheet music with an Indiana connection. These pieces date from 1840 (a campaign song for William Henry Harrison) through the 1960s, with the bulk of the music dating from 1890 through 1950. The collection includes a wide variety of pieces: "booster" songs promoting a particular city or railroad stop, centennial songs from state-wide, county, and city celebrations, religious works, college songs, and songs based on the literary works of well-known Indiana authors such as James Whitcomb Riley.

The Indiana State Museum owns about 1,800 pieces of Indiana-related sheet pieces from the Sam DeVincent collection and other sources. The collections include many of the published works of the Von Tilzer brothers, who were born in Indianapolis. Their popular songs include standards such as "Take Me Out to the Ball Game," "I Want a Girl," "Apple Blossom Time," and "Put Your Arms around Me." The museum also holds a very good selection of Indiana Ragtime, 1910-1925, and representative collections of composers Hoagy Carmichael and Cole Porter.

The Indiana Historical Society sheet music collection is also comprised of items gathered from a number of other collections, with about 950 items related to Indiana by composers including Irving Berlin, Paul Dresser, Al Jolson, Jerome Kern, Fritz Krull, John A. McGee, Cole Porter, and Albert and Harry Von Tilzer. The museum recently acquired the Jane B. Anderson Sheet Music Collection, with approximately 12,000 items, dating from 1854-1980, in subjects beyond Indiana ranging from semi-classical to vaudeville.

Indiana University's Lilly Library contains one of the nation's largest collections of American sheet music: in addition to the DeVincent Collection described above, the Lilly Library owns the Starr Sheet Music Collection, containing more than 100,000 separate items.

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