The Wayfinder Project:

Revealing Black Print Culture to a Linked World, 1830-

Final Report for Grant PW-285174-22, Preservation and Access: Humanities Collections and Reference Resources Grant from National Endowment for the Humanities

EMORY UNIVERSITY | Emory Center for Digital Scholarship

NATIONAL ENDOWMENT FOR THE HUMANITIES

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Executive Summary

The Wayfinder Project was a National Endowment for the Humanities-funded initiative that explored transforming James Danky and Maureen Hady's influential 1998 bibliography, *African American Newspapers and Periodicals: A National Bibliography*, into a modern linked data resource. Led by the Stuart A. Rose Manuscript, Archives, and Rare Book Library at Emory University, this collaborative effort aimed to reimagine how traditional bibliographic references can better serve researchers in the digital age while revealing hidden connections within Black print culture from 1830 onward.

The project developed a comprehensive data model mapping bibliographic information to Wikidata, the widely-used source of linked open data powering Wikimedia and Wikipedia. Through a combination of innovative technological approaches (including AI-assisted data extraction) and community engagement (via an interdisciplinary advisory board and classroom activities), the team created workflows for extracting, cleaning, reconciling, and uploading the bibliography's data to Wikidata. This approach has the potential to transform the bibliography from a static print reference into a dynamic "Collections as Data" resource that can continue to grow through community contributions.

Key findings from the project revealed that the greatest challenges were social rather than technical, particularly building meaningful and sustained community engagement. The project demonstrated that next-generation technologies such as linked data have the potential to expand traditional library services such as providing practical experiences in data creation and management. Through presentations at professional conferences, experimental classroom engagements, and data experimentation, the Wayfinder Project accomplished foundational work toward more comprehensive implementation, establishing both technical frameworks and methodological approaches for reimagining this important bibliographic resource in the linked data era.

Project Objectives

- Explore the opportunities for a new research tool for African American periodicals that leverages linked data frameworks through engagement with scholars, serials catalogers, and digital humanities experts
- Assess the feasibility of decentralized tooling such as Wikidata for library-generated metadata, particularly their sustainability and potential for engaging various communities beyond traditional library settings and processes through open access and crowdsourcing methodologies
- Define potential methodologies and workflows for transforming core print bibliographies into next-generation digital resources

Participants

This project was a collaborative effort locally and nationally. It was led by the Stuart A. Rose Manuscript, Archives, and Rare Book Library in collaboration with the Emory Center for Digital Scholarship; Research, Engagement and Scholarly Communications; and Access and Resource Services. Although the staffing on the project shifted over the course of the grant, we recognize all the participants of the project for their contributions.

Project team

Jennifer Gunter King, Project director (July 2021-March 2024)

Elizabeth Roke, Co-project director (May 2022-March 2024), Project director, March-June 2024

Erica Bruchko, Librarian for African American Studies and United States History, Emory Libraries

Clint Fluker, Curator of African American Collections, Stuart A. Rose Manuscript, Archives, and Rare Book Library

Richard Guess, Serials Coordinator, Robert W. Woodruff Library; Adjunct Cataloger, Stuart A. Rose Manuscript, Archives, and Rare Book Library

Sara Palmer, Digital Text Specialist, Emory Center for Digital Scholarship

Kayla Shipp, Digital Scholarship Specialist, Publishing, Emory Center for Digital Scholarship

Advisory Board

We are indebted to the project's interdisciplinary advisory board, which consisted of scholars of African American history and Black print culture, serials catalogers, and digital humanities specialists. These board members were selected based on their participation in parallel projects and their expertise in the field of African American bibliography more broadly. Their guidance shaped project deliverables, corrected assumptions, and inspired the overall vision for the project. We give special thanks to James Danky, editor of *African American Newspapers and Periodicals: A Bibliography* for trusting us to reimagine his seminal work within a 21st century research and library environment.

Advisory board members included:

Jim Casey, Assistant Research Professor of African American Studies, History and English, Penn State University, Co-director and founder, *Colored Conventions Project*

Rico Chapman, Professor of African American Studies, Africana Women's Studies and History, Assistant Dean, School of Arts and Sciences, Director, Humanities Ph.D. Program, Clark Atlanta University

James P. Danky, Editor of *African American Newspapers and Periodicals: A National Bibliography*

Amy E. Earhart, Associate Professor of English and affiliated faculty of Africana Studies, Texas A&M University, Author of "Digital Humanities and the Infrastructures of Race in African American Literature"

Eric Gardner, Professor of English, Saginaw Valley State University, Author of *Black Print Unbound: The Christian Recorder, African American Literature and Periodical Culture*

Vince Golden, Curator of Newspapers and Periodicals, American Antiquarian Society

Meredith McGill, Professor of English, Rutgers University; Co-director, *Black Bibliography Project*

Derrick Spires, Associate Professor of Literatures in English and affiliate faculty in American Studies, Visual Studies, and Media Studies, Cornell University, Author of *The Practice of Citizenship: Black Politics and Print Culture in the Early United States*

Timothy A. Thompson, Librarian for Applied Metadata Research, Yale University, Metadata Team, *Black Bibliography Project*

Other acknowledgments

We would like to add special thanks to the students in the 2024 Spring Semester of Emory's Race, Gender, and Media Making class, led by Sarah Salter, Teaching Professor and Director of the Writing Program at Emory University. Dr. Salter collaborated with us to test drive the concept of collaboratively developing new entries and enhancing existing descriptions within *African American Newspapers and Periodicals* through a semester-long project. We learned a lot about where this collaborative crowd-sourced model succeeds and where it doesn't, conclusions that will help inform future implementation phases for the project and other collaborative projects built on open source linked data networks.

About *African American Newspapers and Periodicals: A National Bibliography*

The Wayfinder project was an initiative to explore updating and republishing James Danky and Maureen Hady's 1998 *African American Newspapers and Periodicals: A National Bibliography.* This bibliography has served as a central resource in the development and the description of collections at libraries across the United States, including Emory. Published in 1998, the index grew from a modest checklist of African American Periodicals held by the State Historical Society of Wisconsin to the most comprehensive bibliography of African American newspapers

and periodicals to date. Nearly 800 pages in length, it contains over 6,500 detailed entries that provide researchers with a fingerprint for each publication, including title, editor and publisher names, geographic location, subscription information, and publication dates. With support from the NEH and the Ford Foundation, Danky and Hady sourced this information over three decades from hundreds of libraries and archives across the United States through correspondence with librarians and archivists and via site visits with the goal of "direct examination of each issue of every title." When published, *African American Newspapers and Periodicals: A National Bibliography* was hailed as a "remarkable achievement in bibliographic scholarship."

The Black newspapers and periodicals described in Danky's bibliography provide a direct channel to African American thought in the early years of Black publishing through the twentieth century. As Henry Louis Gates, Jr. Notes in the preface to the bibliography, because African Americans were "frequently denied a forum in white-owned magazines, newspapers, and publishing houses...writers of the nineteenth and early twentieth century found a market for their work in their neighborhood Black periodicals." As such, they "offer a conduit into an almost self-contained universe of thought and feeling of the African American people." Despite their importance, many American institutions paid meager attention to the Black press until the 1970s, and, as a result, important African American newspapers and periodicals were never collected or preserved. Libraries in more recent years have sought to reconstruct this cultural heritage; however, navigating gaps in print runs, and name and editorial changes continue to pose challenges for libraries seeking to describe them and researchers seeking to find them.

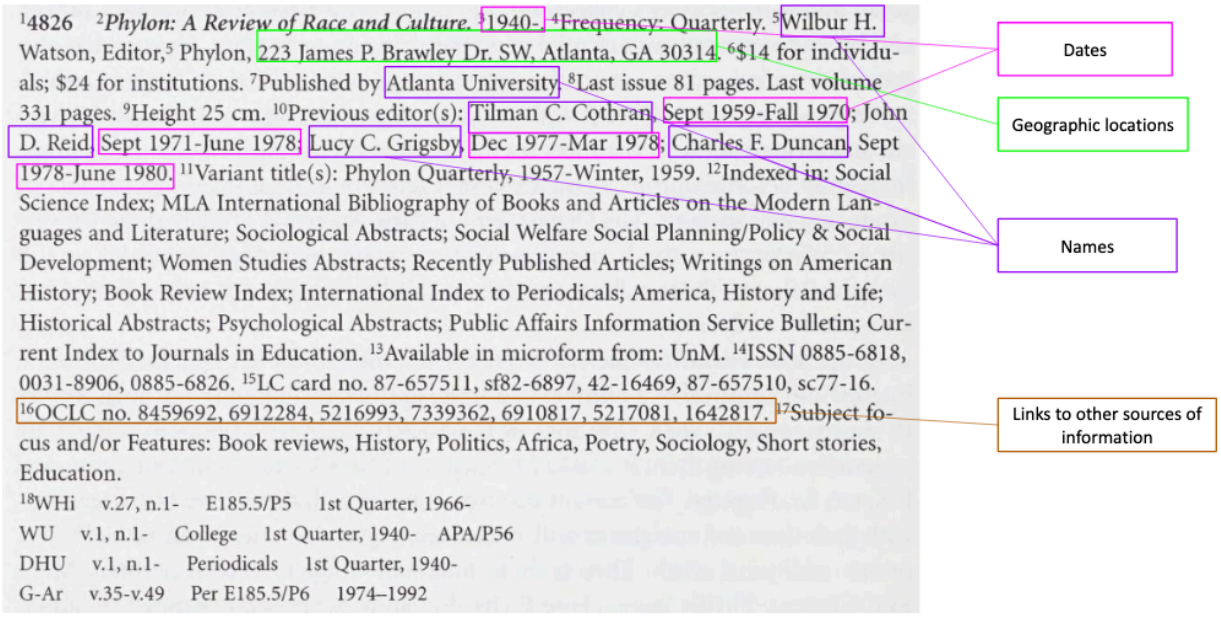
The Wayfinder project is a first effort towards imagining and creating a centralized, up-to-date, semantically-linked resource that compiles African American serials and provides relevant information about them, using Danky's bibliography as its primary source material.

Reimagining Bibliographic Resources with Linked Data

Linked data is a newer paradigm within the library metadata community. It aims to integrate with and engage in the wider information community by (1) using data exchange protocols and data structures common on the web and the networked world to share bibliographic data beyond the library community and (2) integrating data from non-library resources. Linked data has the potential to improve accessibility of library resources, enhance interoperability, reduce cataloging redundancies, and offer new discovery paths for researchers.

The Wayfinder project aimed to explore the opportunities and challenges in reimagining traditional bibliographic indexes using a linked data framework, pushing the boundaries of traditional MARC-based serials cataloging to integrate external data sources and inviting scholars, students, and the public to contribute to library-based metadata. *African American Newspapers and Periodicals* is an enticing opportunity to explore the potential of a linked data

paradigm because it contains numerous entities such as editors, publishers, and geographic locations that could be linked to metadata in other external resources, improving discovery by connecting disparate information sources and offering the potential to enhance the bibliographic description with additional contextual information available in non-bibliographic resources.



The use of Wikidata as the technical foundation and repository of the project data was a deliberate choice. As of 2024, Wikidata is the largest multilingual knowledge graph on the web, comprising over 100 million entities. Wikidata offers a free, user-friendly platform that welcomes the contributions of all, enabling the project to connect with potentially unknown sources of information. Linking entities described in *African American Newspapers and Periodicals* to Wikidata adds additional context to the names, places, and publications described in the bibliography by linking it to data already in Wikidata, enables users to more easily trace the name changes ubiquitous to this type of resource, and transforms the bibliography from a traditional print bibliographic index into a Collections as Data resource.

Project Activities

Advisory Board Meetings

Among the Wayfinder Project's major accomplishments was the creation of its interdisciplinary advisory board, which consisted of scholars of African American history and Black print culture, serials catalogers, and digital humanities specialists. These board members were selected based on their participation in parallel projects and their expertise in the field of African American

bibliography more broadly. Board members participated in a series of meetings: one two-day, in-person meeting and two virtual meetings.

In-person meeting

The in-person meeting took place from October 24-25, 2022, at the Stuart A. Rose Manuscript, Archives, and Rare Book Library. During this meeting, members of the project team introduced Emory Libraries and the general parameters of the project. In addition, board members presented on their own projects in a series of "Project Shares." The goal of the meeting was to assess potential opportunities and challenges in the formation of a linked data version of *African-American Newspapers and Periodicals: A National Bibliography.* An abbreviated agenda is available in the Appendix.

Outcomes & Recommendations:

In addition to learning from the "Project Shares," the team solicited concrete advice on how to proceed with the Wayfinder Project. Recommendations that the advisory board made fell into three broad categories:

(1) *Best Practices for Curating Data & Technical Development*

Members of the board suggested that the project keep in mind the following principles when curating data and developing the technical aspects of the project. For Board members, a well-developed linked data project must:

- Remain open, include an index, and encourage ongoing and open editing of information.
- Describe meaningful relationships between data points and ensure that these relationships are machine readable and searchable.
- Identify user needs to inform data curation priorities and future digitization advocacy.
- Capture use needs and support digitization of newspapers and periodicals through the National Historical Publications and Records Commission (NHPRC) and other grants.
- Build connections with vendors to help break-down paywalls and promote broader access to resources.
- Design tools with local Black community culture and practice in mind.
- Understand that article-level metadata is highly valuable but expensive to produce. The linked data model should allow for the possibility of article-level metadata in future efforts.

(2) Emory Project Infrastructure Recommendations

The board also suggested that the project team be intentional in how it engages with students and future team members and to:

- Encourage an interventionist pipeline, where advanced undergraduates and graduate students can develop local specialties that benefit themselves and the project

- Provide flexible fellowships for faculty and graduate students
- Hire full-time positions if possible
- Create documentation that establishes clear, shared principles related to project priorities, especially with regard to prioritizing the participation of African American students and faculty partners

(3) Community Outreach Recommendations beyond Emory
Finally, board members encouraged the project to take an intentional approach to community engagement, especially with regard to partnership with African American community members at Emory, in Atlanta, and beyond. They noted that leadership for a digital project that engages with race and gender should:

- Be transparent about methodologies used.
- Develop tools based in local Black community practices.
- Foster community building to enable crowd-sourced contributions of data.
- Include members from HBCUs (Tuskegee, Tougaloo, etc.) for the next phase of the project.
- Collaborate with UNCF Mellon faculty workshops
- Center black storytelling by partnering with the Atlanta University Center
- Recruit participants through the College Language Association

They also suggested that the project create opportunities for community building in order to leverage crowd-sourcing opportunities and promote community engagement.

Virtual Advisory Board Meetings

Two virtual meetings also took place in the Spring semester on March 31, 2023, and May 5, 2023.

Virtual Meeting 1: On March 31st the advisory board met from 2-4 EST for an update on project activities, a review of the proposed metadata model, and a discussion of use cases. The group also introduced a new advisory board member, Michelle Gordon, Senior Lecturer and Director of Undergraduate studies in Emory University's African American Studies Department.

During the March meeting, the team posed two questions: What new projects or trends are you following related to our shared interests? Do you have updates on your particular projects that you'd like to share? And "What events or conferences have you heard of or participated in since our last meeting that might be relevant to the conversation?

This was followed by an overview of highlights from the in-person meeting, including new parameters for the project. The meeting ended with a progress report on the data model and future development.

Virtual Meeting 2: The May 5th the board met from 2-4 EST for a final update on project activities and for a discussion of the sustainability of data based and digital humanities projects. Prior to the meeting Board members submitted sustainability plans for further discussion. We then broke into small group discussions. Themes that emerged included:

- The role of training students to assist with this work
- The breaking down of technical and subject specialist silos
- The importance of partnerships given the uncertainty of funding or possibility of staff turnover
- The creation of governing boards to facilitate stewardship
- The building up of community support

Classroom Activities

In addition to organizing meetings with the Advisory Board, the Wayfinder Team also piloted an experiential learning workshop for Emory College undergraduates in the Spring of 2024. The team partnered with the Director of the Emory Writing Program, Sarah Salter, to design and facilitate a Wayfinder assignment for her ENGRD328W: Race, Gender and Media Making course.

The assignment asked students to research an African American newspaper or editor listed in *African-American Newspapers and Periodicals: A National Bibliography* and use that information to create Wikidata and Wikipedia entries.

To accomplish this, the team introduced new concepts gradually, through a series of workshops and activities starting in February and ending in April. These were led by project team members and library and archives staff.

Pre-Work: *Account Set-up:* Students set up individual accounts and linked them to our Wiki.edu site.

Information Session 1: Introduction to the Wayfinder Project and Wikipedia (Erica Bruchko, African American Studies and US History Librarian; Elizabeth Roke, Archival Technology Program Manager): In this 75-minute class, students received an overview of the Wayfinder Project and discussed the importance of African American newspapers and periodicals. They also received information and instruction about Wikipedia editing. And at the end of the session, they practiced editing Wikipedia by looking in *African-American Newspapers and*

Periodicals: A National Bibliography, finding a newspaper or editor, then finding mention of it in Wikipedia and adding a reference to the entry.

Topic Selection: Students chose from a pre-selected list of newspaper titles from *African-American Newspapers and Periodicals: A National Bibliography.* These papers met two important criteria for the project team: (1) They did not have existing Wikipedia or other substantive encyclopedic entries and (2) at least one edition of the papers was available digitally. Based on this list, students could choose to research the newspaper title, the editor of the paper or both.

Information Session 2: How to Research Historical Newspaper Titles and Editors (Hannah Griggs, English Librarian; Elizabeth Roke, Archival Technology Program Manager)

Students learned how to find information about local newspapers using databases and print resources and introduced a class guide. The team paid special attention to helping students find local history and genealogical resources necessary for locating information on the papers not available in traditional academic sources.

Research & Editing Workshop 1: Students conducted research with the help of the faculty member and librarians.

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Outcomes:

Students learned about Wikipedia and conducting local history research. They also contributed new information to Wikipedia and Wikidata not available elsewhere by doing primary source research. In so doing, they directly helped to rectify major omissions related to black print culture in the digital record. Finally, they assisted the project team in thinking through the needs of the project. In sum, students created 6 articles, edited 29 and added over 9,000 words to Wikipedia. By piloting the project, the team created a template for future experiential-based learning lessons involving Wikipedia and Wikidata.

Development of the Data Model and Data Processing

One of the main products of the project was the composition of a data model mapping bibliographic information to fields represented in Wikidata, the widely used source of linked open data powering Wikimedia and Wikipedia. This data model (see Appendix) derived from both conversations with advisory board members as well as core team deliberations that sought to balance the use cases of scholars and the general public with the requirements of the Wikidata platform and community.

An early step was to map the data elements recorded for an entry in *African American Newspapers and Periodicals* to the standards of the Cooperative Serials Program of the Program for Cooperative Cataloging (CONSER). The differences inherent in an entity-based model where entities represent real-world objects and concepts from a bibliographic-based model where records stand-in for those real-world objects made this mapping challenging. Some required elements in CONSER related to physical manifestations such as extent and physical description, simply did not map to the Wikidata data model and had to be left out. Other descriptive elements such as editor, publication dates, language, and references to external vocabularies such as the Library of Congress Catalog and the ISSN number mapped easily.

Some of the challenges also involved considering which parts of the data could be kept current. Prices of the newspapers and periodicals, while useful to scholars, were generally not up to date and did not meet the standards of Wikidata. Other fields such as subject headings did not align with external standards of controlled vocabularies. Perhaps the most controversial decision was the exclusion of holdings data from the model. Information about the locations of physical instances of the titles described in *African American Newspapers and Periodicals* is crucial to scholars conducting research. However, this information is only current to 1998, and a comprehensive update was determined to be beyond the scope of an implementation grant.

Data Workflow

We established a workflow for extracting, cleaning, reconciling and uploading the data from *African American Newspapers and Periodicals* to Wikidata. We were fortunate to have an open-source OCR version from Internet Archive, as well as copyright permission from Harvard University Press to republish the resource. Data extraction was performed by downloading the full text and then preprocessing it with a Python script that segmented the document into discrete entries, one for each periodical. The plain text version of the bibliography located on the Internet Archive contains a couple errors that were corrected for the script to successfully run. One was an OCR error mislabeling an ID number (1111) with letters and another was the absence of five records (6041-6045) that were coded as missing data. With the corrections in places, the script used regular expressions to identify the start and stop of each entry and combined these entries in a single XML file. An early challenge was parsing each entry into separate fields that could be standardized and imported into Wikidata. The data was too inconsistent for normalization scripts to work consistently, but luckily artificial intelligence offered a potential path forward with ChatGPT.

From the parsed entries, we selected a random 10% sample and processed each with a Python script that used the ChatGPT 3.5 API to return hierarchical XML data. The script is a lightweight wrapper for a plain language prompt (see Appendix) instructing ChatGPT to extract data for selected fields. One of the challenges of working with large language models like ChatGPT is that they do not perform precisely the same way for each API call in a series of requests. This meant that we needed to use postprocessing scripts to reconcile spelling variations in field

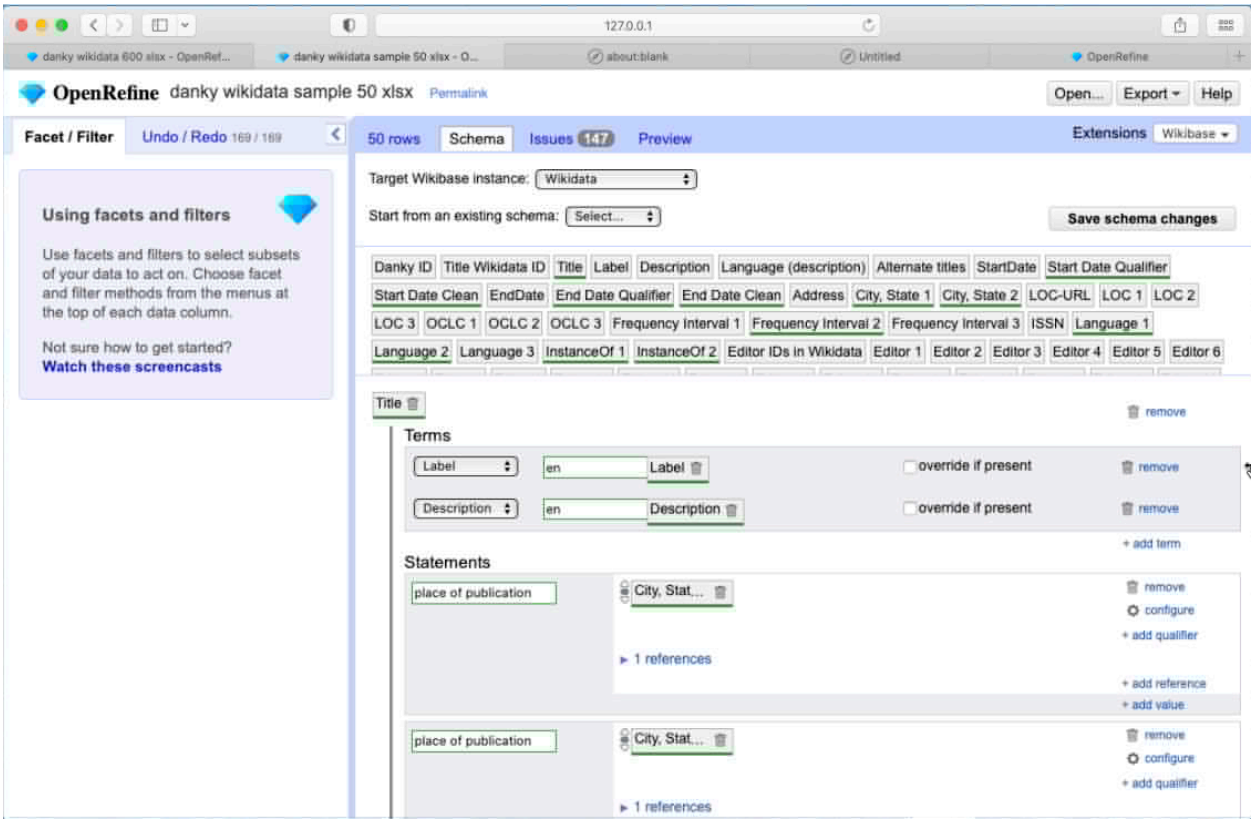
names and reformat the hierarchical data into a spreadsheet. While hierarchical data can be more nuanced, we recommend specifically instructing ChatGPT to return data as a flat dictionary for better consistency and ease of use.

We then employed a team of graduate students to validate and correct the data where needed. This allowed us to evaluate the accuracy of ChatGPT in addressing this text. We discovered that it performed over 90% accuracy for most fields but struggled somewhat on certain types of fields. The fields it struggled on included Editors, Physical Description and Subjects, all fields in which multiple values were present. Since we based our accuracy rating on all data being both correct and complete, it is unsurprising that ChatGPT had lower scores for these particular fields. We expect that improvements in ChatGPT introduced in recent releases of the LLM would improve these scores. In addition to this initial correction, the graduate students also performed some data cleaning to normalize data formats.

Accuracy Rates of ChatGPT Performance Parsing Fields

Field	**Accuracy Rate**
Language	99.5%
Frequency	98.0%
Date	96.2%
Height	96.0%
Address	95.8%
Title	94.2%
Library of Congress Number	89.4%
ISSN	89.2%
Publisher	88.3%
OCLC Number	82.0%
Editors	71.4%
Physical Description	70.2%
Subjects	59.4%

Next we used the open-source tool OpenRefine to finalize cleaning and reconcile the data with Wikidata. The reconciliation process entailed matching values in the data with those in Wikidata data and establishing when new entities need to be created in Wikidata for values not already present. OpenRefine provides documentation for this process. Once the columns were reconciled, we mapped them to Wikidata properties in OpenRefine's schema tool.



Screenshot of in-progress mapping in OpenRefine's schema builder.

OpenRefine's integration with Wikidata standards provides helpful warnings on issues that may prevent data upload. After addressing all the pertinent issues in the dataset, we proceeded to data upload. While OpenRefine does provide a pathway to upload to Wikidata, we opted to use it to export QuickStatements, a series of plain text commands that can be uploaded to Wikidata using the QuickStatements tool.

```
Q27709403 Len  "The ABNF Journal"
Q27709403 Den  "American newspaper"
Q27709403 P291 Q1023953  S248 Q105749481
Q27709403 P31  Q2217301  S248 Q105749481
Q27709403 P6375en:"ABNF Journal, P.O. Box 580, Lisle, IL 60532"    S248 Q105749481
Q27709403 P407 Q1860S248 Q105749481
Q27709403 P243 "20496528"S248 Q105749481
Q27709403 P1144"sn89-3157"    S248 Q105749481
Q27709403 P495 Q30  S248 Q105749481
Q27709403 P289615U573    S248 Q105749481
Q27709403 P571 +1990-00-00T00:00:00Z/9   S248 Q105749481
Q27709403 P1476en:"The ABNF Journal"     S248 Q105749481
Q27709403 P236 "1046-7041"     S248 Q105749481
Q27709403 P1343Q105749481P1545"41" S854 "https://archive.org/details/africanamericanne00dank"
CREATE
LAST Len  "ABPA News"
LAST Den  "American newspaper"
LAST P291 Q60  S248 Q105749481
LAST P31  Q2217301  S248 Q105749481
LAST P6375en:"New York, NY"    S248 Q105749481
LAST P407 Q1860S248 Q105749481
LAST P243 "37958774"S248 Q105749481
LAST P495 Q30  S248 Q105749481
LAST P28963U5151    S248 Q105749481
LAST P571 +1987-00-00T00:00:00Z/9   S248 Q105749481
LAST P1476en:"ABPA News"  S248 Q105749481
LAST P1343Q105749481P1545"47" S854 "https://archive.org/details/africanamericanne00dank"
```

Sample QuickStatements for a periodical in Wikidata ("The ABNF Journal") and one to add to Wikidata ("ABPA News").

Since many of the periodicals, names of editors and publishers are not already in Wikidata, we have defined the following steps to ensure all fields in the data model can be included:

1. Reconcile periodical titles and all fields excluding editors and publishers with Wikidata and then upload.
2. After identification numbers for each title are minted in Wikidata, run a SPARQL query to retrieve the titles based on the Wikidata property 1343 (described by source) and a value of Q105749481, the Wikidata record for the bibliography.
3. Return to OpenRefine and reconcile publishers and editors columns and map them in the schema tool to the bibliography.
4. Export the editor and publisher QuickStatements and upload to Wikidata.

The above steps make our workflow generally reproducible although technologies like ChatGPT are quickly and constantly evolving. Future data extractions by large language models will likely prove more accurate and more consistent.

Analyses, Methodologies and Training Materials

In addition to the data model and workflow, we produced training materials for instructing graduate students how to analyze the results of the data extraction. We also performed a preliminary analysis of African American periodical data sources to determine which periodicals

and newspapers were available online by reconciling our sample data set with data provided by the Library of Congress National Digital Newspaper Program. We found a surprisingly small number of matches from our sample set of less than 2%.

Wikidata vs. Wikibase

The intended audience shifted over the course of the grant. Initially we intended to produce our own instance of Wikidata using the Wikibase software and host it on a university server for scholars and the public to access in an online portal. While supporting our own instance of Wikibase would allow for customization, it also entailed sustainability risks. One risk is the possibility that engineering support could prove difficult to maintain over the long term. Another is the nature of the code, which is split into eight different components with different technical dependencies. We determined that uploading to Wikidata was more reliable and sustainable because its technology stack is already expertly maintained and tools like OpenRefine directly interact with it. A recognized risk is data loss because anyone can edit Wikidata. Although malicious attacks on this type of data is a low risk, this risk can be mitigated by keeping a local copy of the data set and periodically auditing the data in Wikidata to ensure ongoing data quality.

Project Key Findings

The Wayfinder project represented a reimagining of the traditional bibliographic index using next generation linked data technologies and methodologies. It aimed to explore how bibliographies, a traditional reference tool, could better meet research needs in a digital rather than a print format. The project's mix of technological experimentation along with focused engagement with the scholarly community allowed us not only to uncover (and in some cases solve) technological challenges but also to remain user-focused throughout the project.

The challenges of the Wayfinder grant were largely social, not technical.

Throughout the Wayfinder Project, we discovered that many of the technical aspects of transforming a print bibliography into a linked data resource were relatively straightforward. Modern tools like OpenRefine, ChatGPT, and Wikidata's infrastructure provided robust pathways for data extraction, reconciliation, and publication. However, the social dimensions proved significantly more challenging. Building meaningful partnerships with African American community members and organizations required time and intentionality that our technical focus sometimes overshadowed. We struggled to balance the expertise of librarians and technical specialists with the crucial perspectives of scholars and community members who understand the cultural significance of these periodicals. The project revealed a tension between library-centric metadata approaches and community-driven description that centers Black experiences and perspectives. Future implementations must address this core challenge

by prioritizing relationship-building and shared governance from the outset, ensuring that technical solutions serve community-defined goals rather than institutional priorities alone.

While next-generation technologies offer promise for better discovery and description of periodicals, newspapers, and serials, connecting descriptions of these items to physical print resources remains a major challenge.

The linked data approach successfully created rich, interconnected descriptions of African American periodicals that reveal relationships between publishers, editors, locations, and publications in ways impossible within traditional bibliographic systems. However, a significant gap emerged between these enhanced digital descriptions and the ability to connect researchers with the physical items themselves. Holdings information from Danky's 1998 bibliography is now outdated, with many collections having moved, been dispersed, or digitized. The decentralized nature of library collections, combined with inconsistent digitization initiatives across institutions, creates substantial barriers for researchers seeking access to these materials. This finding underscores the need for a coordinated approach to updating holdings information across institutions and developing sustainable methods for connecting enhanced metadata to both digital and physical collections.

Libraries have something to offer beyond discovery and access to resources through practical experiences in data creation and management.

The classroom collaboration with Emory's "Race, Gender, and Media Making" course revealed an unexpected finding: libraries can provide valuable educational experiences in data creation and management that go beyond traditional research support. Students engaged in creating Wikipedia entries and enhancing Wikidata records for African American newspapers gained practical skills in information literacy, digital scholarship, and evaluation of historical sources. This experience positioned the library not just as a provider of resources but as a laboratory for active learning about knowledge creation and dissemination. The project demonstrated that libraries can play a crucial role in helping students understand how information is produced, organized, and shared—particularly for historically marginalized communities whose stories often receive less attention in reference sources. This finding suggests promising directions for libraries to reimagine their educational mission through collaborative data creation projects that simultaneously enhance resources while developing critical information literacy skills. Future implementations should expand these educational partnerships, creating a sustainable model where student engagement simultaneously enhances bibliographic resources while providing valuable experiential learning.

Conclusion

The Wayfinder Project has laid significant groundwork for reimagining how libraries approach bibliographic resources in the digital age. Through our exploration of linked data frameworks applied to James Danky and Maureen Hady's landmark bibliography *African American Newspapers and Periodicals*, we have identified both promising opportunities and challenging realities in transforming traditional reference tools.

Our work demonstrates that while technical solutions exist to transform static bibliographies into dynamic, interconnected resources, the greater challenges lie in building sustainable community engagement, ensuring data currency, and connecting users to physical collections. The adoption of Wikidata as our technical foundation, rather than a custom Wikibase instance, reflects our commitment to sustainability and accessibility, though it carries its own challenges of data governance and quality control.

The project revealed important tensions between library-centric approaches and true community-driven development. Future phases must center African American communities in both leadership and participation, moving beyond describing Black print culture to actively engaging with its living legacy. The classroom pilot with undergraduate students showed promising potential for educational partnerships that simultaneously enrich metadata while teaching critical information literacy skills.

As we look ahead to implementation, the Wayfinder Project stands as both a technical proof-of-concept and a social roadmap. We have demonstrated that libraries can play a vital role beyond discovery, offering expertise in data creation and management that connects historical resources to contemporary research and educational needs. The transformation of Danky's bibliography represents not just a technological update but a reimagining of how cultural heritage institutions might serve as bridges between past publications and future scholarship, particularly for historically marginalized voices in American print culture.

Appendix

Wikidata Data Mappings

Field in Danky	Description	Wikidata Property
Label	Title of the newspaper or periodical	—
Description	Description of the periodical (American newspaper)	—
Language	Language of description	—
Name of Bibliography	Title of the bibliography	P1343
Bibliography ID	Entry number in the bibliography	P1545
Title	Title (most recent title in the case of publications with various titles)	P1476
Digitized version	URL to online version of the periodical	P953
Type	Type of work (periodical/newspaper)	P31
Publication Start	Year(s) publication began or ceased	P571
Publication End	Year(s) publication began or ceased	P576
Frequency	Frequency (most recent frequency in the case of publications with varying schedules)	P2896
Editor	Current editor	P98
Editor begin date	Date person started as editor	P580
Editor end date	Date person ceased to be editor	P582
Publication Address Street	Address street	P6375
Publication Address City	Address city	P291
Publisher	Publisher(s)	P123
ISSN	International Standard Serials Number	P236
LOC	Library of Congress catalog number	P1144
OCLC	OCLC, Inc. control number	P243
Language	Languages used in the periodical	P407

ChatGPT Prompt

Act as an information specialist and extract data from a bibliography.
You will be provided an XML representation of a bibliographic entry describing a periodical publication. The XML has only two elements, the root <xml> element and a element that wraps a plain text representation of a bibliographic entry. The entry begins with an entry number, followed by a space, followed by a title. These are the only required fields. Other fields are optional. Below is a list of all fields that may appear in the order in which they will appear. The element name for each field is provided in angle brackets followed by a description of the element content followed by optional parsing instructions in parentheses.

All Fields:
<entry_number> Entry number
<title> Title
<publication_dates> Years publication began and/or ceased.
<frequency> Frequency (most recent frequency in the case of publications with varying schedules.
<editor> Current editor
<address> Editorial address
<price> Subscription rates for individuals and institutions.
<publisher> Publisher (multiple values may be present, parse each into separate element)
<pages> Number of pages in last issue and/or volume examined.
<height> Height of the publication in centimeters.
<features> Indication if the title contains any of the following: line drawings, photographs, commercial advertising. (multiple values may be present, parse each into separate element)
<previous_editor> Previous editors. (multiple values may be present, parse each into separate element)
<variant_title> Variations in title, place of publication and/or frequency. (multiple values may be present, parse each into separate element)
<indexes> Indication of where the title is indexed and for what period. (See “Guide to Indexes.”)
<microfilm> Indication if the title is available in microform and for what period. (See “Microfilm Sources”)
<issn> International Standard Serials Number (ISSN).
<lccn> Library of Congress catalog number.
<oclc> OCLC, Inc. control number.
<subjects> Subject focus and features. (multiple values may be present, parse each into separate element)
<holdings> Libraries holding the title, volumes and issues and/or dates held; location within library.

<language> An indication of language(s) other than English is also included.
Parse data as it appears into XML format using only the element names provided.

Sample Agendas from in-person and Virtual Board Advisory Board Meetings

In-person Advisory Board Agenda

Day 1

- Breakfast
- Emory Presentation, Rose Library & Emory Center for Digital Scholarship
- Wayfinder Presentation #1 - Overview
- Lunch
- Project Share and Discussion #1
- Wayfinder Presentation #2, Project Methodology
- Wayfinder Presentation #3, Introduction to the Danky Bibliography
- Dinner & Reception

Day 2

- Project Share and Discussion #2
- Wayfinder Presentation #4, Periodical Review Activity
- Project Share and Discussion #3
- Group Discussion: Next Steps, Questions, Concerns

Virtual Advisory Board #1

- Welcome and Introductions
- Review of Meeting Agenda
- Administrative Housekeeping
- Advisor Updates
- Review of Minutes and High-Level Findings from October Meeting
- Report on Progress since October
- Discussion of Future Development

Virtual Advisory Board #2

- Welcome
- Report on Progress since March
- Review of Draft Implementation Project Value Statement and Scoping
- Discussion of Sustainability in the Digital Humanities
- Project Next Steps

Classroom Assignment

Wayfinder Wikipedia Project

Purpose

This assignment, which includes several components, is a chance for us to participate meaningfully in the "remediation" of periodical history through original research and Wikipedia/Wikidata entries related to Black editors and periodicals in the United States. Our work will contribute to the NEH funded Wayfinder Project housed in the Stuart A Rose Special Collections library. Our purpose is simple: contribute in public knowledge about Black periodical history!

Process

There are robust resources through Wikipedia and the Rose/Woodruff library. We will start having Wiki introduction activities starting Feb 14, and there will be ongoing wiki-specific training modules, discussions, and check-ins. All work that is required will be graded as part of the total 300 points (30%)-i.e. online training, class sessions, and actual materials generated for Wikipedia and Wikidata.

Required Materials

There are three major components for this project:

1. A Wikipedia article created for this assignment that uses one of the editors or publications from the Wayfinder Black Periodicals Project. This article may be long or short, depending on whom/what you chose and what is learnable about them. You will need at least five (5) sources for citation as reference.

2. A Wikidata entry that provides at least ten (10) entries for metadata reference. These entries will align with your Wikipedia article and use your 5 (or more) sources for the article for reference.

3. A Personal/Research Reflection. Your final article and data entries will, quite literally, live on Wikipedia. In mid-April, you will submit a preliminary "log" of your ongoing research and writing for your entry, and we will have a chance to review each other's work. At the close of the semester, no later than our final exam day, you will submit that research log and a final reflection about your work over the semester. This reflection will be between 1250-1550 words (~3 double-spaced pages) and there will be clear discussion, description, and prompts about what it should contain.

Evaluative Criteria

A successful response to this assignment will be: [1] Complete. Our Wikipedia course page and your canvas submissions will demonstrate that you have done all the assigned work (article, wikidata, reflection, research logs, etc); [2] Comprehensive. You will strive to find as much available material on your selection as you can and to draft, revise, and upload an article to Wikipedia that conveys a comprehensive, clear overview of your historical research; your work will contribute to our knowledge base of Black editors and periodicals, and will contribute to the mission and goals of the Wayfinder Black Bibliography project.

[3] Conventional. Your Wikipedia article and wikidata entries will reflect the conventions of those formats and will adhere to the community “standards” and goals for public knowledge.