

Analysis of Digital Humanities Project Collaboration Platforms: A Case Study of DHCOMMONS (Postprint)

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Abstract

[Purpose / Significance] An analysis of digital humanities project collaboration platforms facilitates understanding of the fundamental status and current development of the digital humanities field. [Method / Process] Using the digital humanities project online collaboration platform DHCOMMONS as a case study, this paper analyzes the platform across multiple dimensions—including funding agencies, disciplinary fields, affiliated institutions, collaboration types, and collaborator types—to understand the fundamental status of project collaboration in the digital humanities field and to propose issues warranting consideration in developing similar platforms in China. [Results / Conclusion] Findings from the platform reveal that these digital humanities projects are affiliated with multiple institutions and funded by various organizations, involve professionals from diverse industries in their operation, and that libraries and librarians play a significant role in the implementation of digital humanities projects.

Full Text

Analysis of Digital Humanities Project Cooperation Platforms — Taking DHCOMMONS as an Example

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Abstract

[**Purpose/significance**] Analyzing digital humanities project cooperation platforms helps to understand the fundamental conditions and current development

status of the digital humanities field. **[Method/process]** Taking the digital humanities project online cooperation platform DHCOMMONS as a case study, this paper examines the platform from the perspectives of funding agencies, disciplinary fields, affiliated institutions, cooperation types, and collaborator types to understand the basic landscape of project collaboration in digital humanities, and proposes issues that China should consider when developing similar platforms. **[Result/conclusion]** As reflected by the platform, these digital humanities projects are affiliated with multiple institutions, funded by various organizations, and involve professionals from diverse industries in their operation. Libraries and librarians play important roles in the development of digital humanities projects.

Keywords: digital humanities; project operation; cooperation platform; discipline distribution

1 Introduction

Digital humanities research is predominantly conducted through projects. Projects represent an academic approach and manifestation that integrates workflows of design, management, discussion, and collaboration. Project implementation typically proceeds through teamwork, where members leverage their diverse skills to conceptualize research questions and design pathways to address them. The complexity and scale of digital humanities projects demand participation from multi-domain personnel both within and beyond educational institutions, including professional associations, public cultural institutions, enterprises, as well as researchers, teachers, and students from various disciplines, engaging in repeated multi-dimensional collaboration, experimentation, and production.

Based on the collaborative characteristics of digital humanities projects, this study's problem consciousness centers on several key questions: What types of institutions participate in project operations? What roles do these institutions play during project implementation? What personnel are involved in projects and how do they collaborate? To address these questions, this paper examines 784 completed and ongoing projects on DHCOMMONS as a sample to understand project operation and collaboration mechanisms, providing reference for China's future development of similar digital humanities project cooperation platforms.

2 Sample Source

DHCOMMONS is a platform that connects digital humanities projects seeking collaboration with relevant individuals and institutions interested in the projects and possessing the required knowledge and skills. The platform fully satisfies the collaborative needs of project teams, helps them sustain operations

by attracting new participants, seeks funding support for small-scale projects, and facilitates interested individuals' involvement in digital humanities work through project participation. As an initiative of CenterNet, DHCOMMONS works with CenterNet to continuously develop this network collaboration hub, greatly simplifying cooperation among digital humanities scholars, institutions, and centers.

3.1 Funding Agencies

Digital humanities projects are characterized by their interdisciplinary nature, comprehensively applying knowledge and skills from humanities disciplines, library science, information technology, and other fields while fully integrating theory and practice. These features reflect how digital humanities projects transcend the boundaries of traditional academic institutions to seek collaboration, including foundations and private funding sources that provide financial support for project operations. Although research funding in the humanities is typically less abundant than in natural sciences and engineering, the interdisciplinary and innovative nature of digital humanities enables most projects to obtain additional financial support.

Regarding project funding, the author screened 100 projects with the most recently published information from the 784 projects and found that multiple institutions fund digital humanities projects. The Arts and Humanities Research Council (AHRC), Joint Information Systems Committee (JISC), Andrew W. Mellon Foundation, and Institute of Museum and Library Services (IMLS) support numerous projects. Other institutions include the British Academy, Irish Research Council for Humanities and Social Sciences, University of Sydney, University of Melbourne, Australian Research Council, among others. Among these 100 projects, AHRC funded the most projects, independently or in collaboration with other agencies, supporting 54 digital humanities projects. The disciplinary coverage of some projects is shown in Table 1 .

Table 1 shows that AHRC's disciplinary focus is broad yet targeted, with history, linguistics, and library studies being areas of particular interest. Most projects span multiple disciplines, reflecting the interdisciplinary characteristics of digital humanities. "London's Past Online: A Bibliography of Greater London's History" aims to create a searchable database of books, articles, and other materials related to Greater London from the Anglo-Saxon period to the present, with over 36,000 entries covering archaeology, dance, English language and literature, history, law, library and information studies, media, music, theology, and religious studies.

3.2 Discipline Distribution

In terms of disciplinary fields, the author reviewed all 784 projects and found they broadly cover all disciplines expressing human culture, including history, archaeology, music, dance, drama, literature, linguistics, library and informa-

tion studies, theology, and religious studies. Project disciplinary fields are further subdivided into multiple subcategories under each major discipline, which can be further divided by era, specific period, country, and region, such as medieval studies, 17th-18th century British literature, and English language and literature.

To understand the disciplinary distribution and current collaboration status of these projects, the author statistically analyzed them by “number of collaborators” and “number of projects,” with results shown in Table 2 . The table reveals that, in terms of project numbers, digital humanities projects primarily focus on history, English language and literature, archaeology, modern languages, library and information studies, visual arts, and linguistics. Relatively less attention is given to fields such as German history, German language and literature, Latin American history, cultural and visual studies, image theory application, computer graphics, machine learning, artificial intelligence, computer analysis, and natural language processing—all of which are involved in a single project. In terms of collaborator numbers, projects currently requiring assistance primarily need professionals in history, library and information science, English language and literature, and archaeology.

Among these disciplines, library science and library and information science are the fields related to books and library research, with a total of 77 projects. The author also examined 100 projects with the most recently published information, with project descriptions related to libraries and books shown in Table 3 .

Table 3 shows that these library- or book-related projects primarily focus on the preservation of resources such as books and audio materials, restoration and access of endangered materials, and the public impact of objects, collections, and art exhibitions. Most project themes are closely related to history, reflecting the important role of libraries and books in preserving human culture and history, and how this role is enhanced through digital humanities concepts and technologies.

3.3 Affiliated Institutions

Project feedback reveals that multiple universities and institutions participate in digital humanities project operations, primarily from the United States, United Kingdom, France, Australia, and Mexico. U.S. universities include Harvard, Yale, UC Berkeley, Mississippi State University, and Montana State University; UK universities include Oxford, Cambridge, University of Hull, Queen Mary University of London, and King’s College London; French universities include University of Lille and University of Rouen; Australian universities include University of Sydney, University of Melbourne, and Australian National University.

These projects are not operated independently by universities; other types of institutions participate in project development. For example, Queen Mary University of London collaborated with Dr. Williams’s Library on projects such as “Private Books for Educational Use: The Formation of the Northern Con-

gregational College Library” and “Dissenting Academies Online: Database and Encyclopedia 1660-1860.” The “Children’s Playground Games and Songs in the New Media Age” project was jointly conducted by the University of Sheffield, University of London, and the British Library.

From project feedback, some universities focus on research issues related to their own countries or leverage their institutional academic resources. Mississippi State University’s “A Shaky Truce: Starkville Civil Rights Struggles, 1960-1980” project studies African American and U.S. history. The University of Washington’s Department of Near Eastern Languages and Civilizations focuses on mainstream cultures and languages of the Near and Middle East, addressing both their contemporary significance and historical roots in world civilization. Its “Emma B. Andrews Diary Project” involves women’s studies, history, and Egyptian archaeology. UK institutions’ projects primarily involve their own country’s language, literature, history, and art forms, as shown in Table 4 .

Some projects operate transnationally. The China Biographical Database, a freely accessible relational database containing approximately 370,000 biographical entries for historical figures from the 7th to 19th centuries as of 2016, is jointly operated by Harvard University, Academia Sinica in Taiwan, and Peking University. The Inscriptions of Roman Cyrenaica (IRCyr) is conducted by King’s College London and Cambridge University in the UK, and New York University and University of North Carolina in the U.S.

Furthermore, among the 100 projects with the most recently published information, a considerable number are affiliated with libraries and other types of institutions, as detailed in Table 5 .

3.4.1 Cooperation Types and Content

Among project collaborations, completed projects do not require additional collaborators, leaving their cooperation type and help description modules blank. Ongoing projects require assistance from other collaborators, with project teams introducing cooperation types and specific help content. The author attempted to understand the specific roles of libraries in projects. In the project “Dissenting Academy Libraries and Their Readers, 1720-1860” conducted at Dr. Williams’s Library, the library serves as a provider of research materials, including: (1) archives and surviving libraries of major public academies in Northampton, London, and other locations from the “New College Collection” at Dr. Williams’s Library in London; (2) archives and surviving libraries of major Presbyterian and Unitarian colleges at Harris Manchester College in Oxford; and (3) surviving archives and libraries of Bristol Baptist College.

The platform publishes content for projects currently seeking help. In terms of cooperation types, these can be divided into eight categories: data entry, proofreading, programming, beta testing, general digital humanities consulting, design, peer review, and other. The number of collaborators and projects for each type is shown in Table 6 .

In terms of collaborator numbers, numerous project teams need cooperation around peer review, digital humanities consulting, and beta testing. In terms of projects, the three most urgently needed types of assistance are digital humanities consulting, programming, and data entry.

Specific examples of help content from the latest 100 projects include:

- (1) Language proficiency improvement. The Psychology project leader hopes to receive help to improve English reading and writing skills.
- (2) Project review, database development, and user feedback acquisition. The Heurist Knowledge Management System, as a mature digital humanities data management platform, is used by multiple projects and users at different levels. The project requires peers to evaluate initial workflows, provide suggestions for improving interfaces for new users, needs professionals to assist in developing example databases and documentation for demonstrating system usage in specific contexts, requires programmers to help with interface improvements and new feature development, and needs feedback from individual or group users of the system regarding desired new features.
- (3) Data processing and entry. The Emma B. Andrews Diary Project requires personnel to transcribe handwritten documents, complete TEI and XML encoding, and enter bibliographic data. The Designing Shakespeare: An Audio-Visual Archive 1960-2000 project needs help collecting and organizing 16 years of stage performance materials. The “A Shaky Truce: Starkville Civil Rights Struggles, 1960-1980” project seeks assistance with transcribing oral history interviews and creating indexes. The Novels Reviewed Database project, which has review data transcribed in Excel, hopes collaborators will help create a relational database.
- (4) System development and data processing. The Digital Sigillography Resource seeks help including developing medieval taxonomies and classification systems, converting and transforming heritage catalogs in various formats into searchable data, designing user interfaces, and understanding trends in increasing various format image resources including 3D images.
- (5) Resource and information collection and supplementation. The Paperbound Watermarks project needs collaborators who can access special collections at certain libraries, obtain photography permissions, and help collect images and watermark information from early manuscript versions.
- (6) Data processing and funding consultation. The Harold Pinter Bibliography: Searchable Digital Database requires others to provide information and suggestions on project technical requirements (such as converting text entries in documents into searchable database records and designing efficient conversion software programs) and advice on seeking institutional sponsorship and external funding.

- (7) Peer review. The Story of the Stuff project team hopes to conduct peer review to understand project strengths and weaknesses.
- (8) Proofreading work. The Digital Mishnah Project hopes to obtain proofreading assistance from individuals proficient in Hebrew.

The “Other” help category involves extensive work including: (1) Direct project participation. The Translation Toolkit is a toolkit for translation practices (including conference translation, translation software, and articles) for researchers, librarians, or cultural heritage workers. Project team members hope to provide assistance for those engaged in conference translation, collect relevant practice materials for publishing journals and developing websites, and have other personnel join the project to participate in translation work. (2) Text mining and computational text analysis. A developer for text mining of television transcripts, who is an academic librarian and associate professor, hopes to find a collaborator with computational linguistic skills to conduct text mining on dialogues from the American TV show “Supernatural,” presenting original dialogue content, words and phrases used by authors, and language expressions used to distinguish and reveal character features through text analysis.

3.4.2 Types of Cooperators

The “Collaborator Type” column targets projects needing help, detailing personal information (affiliated institution, discipline) of potential collaborators and help types. Collaborators providing assistance and participating in project operations have their own research fields and technical expertise, including individuals or small teams, teachers, graduate students, undergraduates, librarians, the public, and others. Members from various institutions participate in these collaborative projects, including current students, researchers, and foundation managers.

To understand the specific information of library and information science professionals in project collaborative operations, the author clicked on the “Library and Information Science” entry in the collaborator type column and found that 17 collaborators and 1 institution provide assistance in this discipline, with details shown in Table 7 .

Table 7 reveals that in the library and information science discipline, institutions including libraries, universities, publishers, and professional associations can provide assistance for digital humanities projects. Professionals including students, librarians, digital humanities specialists, professional association directors, library department heads, college and research institution directors, and publishers join the collaborative operation of digital humanities projects. Among these 17 professionals and institutions, 8 are librarians, including digital humanities librarians, digital project librarians, research and training librarians, and English literature and language comparative librarians.

3.5 Other: Completed Projects

On DHCOMMONS, numerous projects have already concluded. These project descriptions do not include help descriptions or collaborator information. For these projects, the platform lists project start and completion dates, research periods, principal investigators, main project members, data sources, data formats, metadata standards, and project publications. Common data formats include Hypertext Markup Language and JPEG File Interchange Format; metadata standards include Dublin Core, Text Encoding Initiative, and Extensible Markup Language; publications mainly include conference papers and journal articles related to the projects.

4 Reflections

Based on the basic situation of the platform, several reflections emerge:

- (1) Provide an integrated collaboration platform to assist project operations. Digital humanities project development and operation require support from multiple types of institutions at different stages and dimensions, including resource provision and entry, technical support, project operation and management, and user interface function expansion. An integrated platform should be provided for project teams seeking collaboration to publish information and find potential collaborators.
- (2) Multiple types of institutions and professionals from different industries actively participate in project operations. The interdisciplinary and inter-institutional nature of digital humanities projects indicates that participating institutions and individuals exhibit diverse characteristics, leveraging their expertise and resources to collaborate with project teams in various aspects and provide different types of assistance. As demonstrated by the mutually beneficial relationship between digital humanities and libraries, libraries and librarians play important roles in digital humanities project operations.
- (3) Wide range of affiliated and funding institutions. In addition to university affiliations, some projects are jointly operated by universities, private institutions, and national libraries, reflecting that project teams can transcend universities to fully utilize resources distributed across various social sectors. This provides reference significance for domestic development and operation of digital humanities projects. Libraries' special collections and local document collections distributed across regions provide substantial data resources for project development, resources that are gradually being utilized by socio-cultural institutions. The Shanghai Library's 2017 open data application development competition, which used the library's genealogical documents, celebrity manuscripts, and archives, exemplifies this trend. If such data can be applied through digital humanities projects, it means that resource data distributed beyond conventional research and teaching institutions has further 挖掘 value.

- (4) Educational orientation of projects. The sustainable operation of digital humanities projects should also consider teaching needs for university students, meaning projects should combine university research and teaching work with actual project service effectiveness. The core value of digital humanities lies in improving public knowledge and literacy. The educational role of digital humanities requires universities to take digital humanities as an opportunity to reconsider humanities curriculum design in the digital society and big data era, re-examining digital humanities project operation methods from a teaching perspective to inject new meaning into project development. UCLA's digital humanities course, which combines theoretical lectures, laboratory activities, student project design, and group discussions, provides potential possibilities for implementing digital humanities projects around university teaching objectives.

5 Conclusion

Although this study understands and reflects the basic situation of digital humanities project collaboration abroad through project information provided by the platform, it has certain limitations. This study 未能 conduct in-depth analysis of digital humanities project collaboration mechanisms. To analyze the collaboration mechanisms, elements, and principles among various institutions in digital humanities projects, one should read theoretical works on digital humanities, conduct further 梳理, analysis, and interpretation of each project's objectives, history, and team member responsibilities on each project's official website. This will become the focus of subsequent research work.

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Note: Figure translations are in progress. See original paper for figures.

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