Narrative

Introductory Statement

The University of Chicago (UChicago) requests $999,032 from the NEH to be matched with $3,996,128 raised funds for UChicagoNode (UCNode), a $4,995,160 infrastructure project to transform UChicago's creation, stewardship and delivery of digital collections and research data. UCNode will build the core of what eventually will be a series of nodes which together will form a network extending and enhancing the practice of digital research. It will provide an integrative platform for existing digital collections and research data, and the procedural and technical infrastructure for the creation, stewardship, and delivery of new data. Across the University, there is a treasure trove of hundreds of terabytes of digital materials, but resources are often siloed and it can be difficult for researchers to find and utilize them. In addition, many of these digital collections exhibit first-generation features powered by legacy technologies that are not compliant with the Americans with Disabilities Act (ADA) and are often too focused on boutique, pre-determined, collection-specific functionality. These systems and collections could be leveraged to do more if they were made more easily discoverable and if they were optimized with modern technologies to support reuse through a unified open access portal. This would open the collections up as datasets for use with machine analysis, natural language processing, spatial mapping, and other AI-based explorations. This modernization of systems would also simplify maintenance, automate connections, and position the Library to play a more active role in ensuring persistent access to research outputs.

For decades, UChicago humanists have conducted pioneering work on digital objects and texts and, more recently, carried out innovative computational research in linguistics, media studies, video games, literary studies, music, art history, and archaeology. The ARTFL (American and French Research on the Treasury of the French Language) Project, founded in 1982, was an early pioneer in textual markup and semantically-aware text searching. It now holds an extensive corpus of French language and other texts, providing a subscription service to over 300 institutions. The OCHRE (Online Cultural and Historical Research Environment) Data Service supports an integrated suite of computational tools for working with all kinds of data through all stages of research. OCHRE is currently being used in over 60 projects by scholars at UChicago and other academic institutions. The UChicago Library has a long history of digitizing collections in support of humanistic studies, stretching back to an NEH digitization grant in 1994. Existing digital collections include materials as varied as New Testament manuscripts, Chopin scores, Islamic lithographs, and Mesoamerican linguistic and anthropological field notes and literature.

The Library will develop and maintain UCNode as an interoperable set of services based initially on the contributions of ARTFL, OCHRE, and the Library. The Humanities Division will consult on the required services, assist with the migration of existing data, and create digital and institutional pathways for directing new projects into the platform. The UCNode platform will be built on the following core technologies that will continue to be maintained by Library staff:

- the Library Digital Repository (LDR), a standards-compliant digital preservation repository; and
- the Library's MarkLogic multi-model document and data publishing platform

The following large-scale humanities projects will leverage the Library infrastructure:

- the Online Publication Service (OPS), peer-reviewed digital volumes supported by potentially large datasets of images, GIS, or other data;
- the OCHRE database platform consisting of millions of highly granular XML files accessible both through the OCHRE app and web apps via the OCHRE application programming interface (API);
- the ARTFL Project's Philologic full-text platform; and
- the Visual Resources Center, which provides art history images for teaching and research.

Key functionality of the new UCNode ecosystem will include:

- An **infrastructure with cross-system integrations** and new functionality that will **enable managing and sharing of digital collections** (see diagram *Additional Supporting Documents*);
- Standards-compliant **preservation storage** for all digital assets in UCNode;
- An **environment for modeling and publishing data and metadata** to international standards;
- Systematized, **machine-actionable rights and permissions metadata** to manage collections with copyright, ethical, or other constraints on access or use;
- **Administrative metadata to record the provenance and ownership of collections** and to allow queries about rights and permissions, etc., to be properly directed;
- **Cross-collection discovery** of digital humanities materials;
- An **open-access portal** that will facilitate bulk downloading of all openly accessible materials to support data analysis, use in the classroom, and for reuse in contexts including topical collection building and exhibitions;
- **Analysis tools** that support exploration of the materials as well as APIs to support DIY analysis;
- An **outreach program** that connects audiences with relevant materials and provides entryways into digital humanities collections through guides and preconfigured tools; and
- A **training infrastructure** that ensures staff in the Library and the Humanities Division understand the full system, allowing a more coordinated workflow for handling incoming user requests and ensuring that researchers are directed to the most relevant components/services for their project.

In order to do this, UCNode will (a) include a council of partners who will oversee development and continuity, (b) hire a Project Manager who will coordinate the project, (c) hire technical staff who, under the supervision of existing staff, will build features and migrate legacy collections, (d) coordinate training and outreach within and beyond UChicago, and (e) undertake fundraising to support the project.

Through UCNode, researchers and the public will have easy access to the wealth of digital content available from across UChicago, alongside tools and guidance as to how to analyze the content and integrate it into their own work. UChicago researchers wanting to build their own digital project will be able to plug into an existing standards-compliant architecture instead of building from scratch, and will have an environment in which to work, share their data, and even put it through a peer review process.

Humanities significance and audience

The University of Chicago is an urban research university that has driven new ways of thinking since 1890. Consistently rated as one of the world's leading universities, it has a strong track record in humanities research, evidenced for example by 20 National Humanities Medalists. It is governed by a board of trustees and led by President Paul Alivisatos and Provost Ka Yee Lee. The UChicago Humanities Division comprises 19 degree programs where students and faculty dedicate themselves to the consideration of humanity's place in the world. Additional humanities research and teaching is undertaken in other divisions such as Divinity and Social Sciences (where the history department is located), as well as in the College. These academic programs are complemented by the premier collections held at the UChicago Library, which is led by the Dean of the University Library and a board consisting of University leadership and faculty.

The Library's digital infrastructure supports digitized collections of manuscripts, books, images, maps, archival collections, and audio and video materials. Over 200 subject-based, archival, and early manuscript collection have been made accessible online, as well as many more individual titles. Subjects range from the Ida B. Wells papers, to Renaissance maps of Rome, to the rarely held jazz age *The Chicagoan* magazine. Current digitization projects include an NEH-funded collaborative project to scan all of the historical maps of Chicago held by the University of Chicago, the Newberry Library, and

the Chicago History Museum, and a CLIR-funded project to digitize videos from the "guerrilla television" movement that saw underrepresented communities taking advantage of portable video cameras to experiment with new forms of documentary, art and activism. The Library also manages the Library Digital Repository (LDR), a standards-compliant preservation repository for digitized collections, the born-digital materials accessioned into the University Archives, as well as faculty projects such as the [South Side Home Movie Project](#) and the [Persepolis Fortification Archive](#).

The Humanities Division is planning two new units to improve its capacity in digital research. The first will be the peer-reviewed UChicago Online Publication Service (OPS). Following the OPS, the division is in the early stages of planning for the UChicago Forum on Digital Culture (FDC), a locus for research, discussion, presenting and consulting on digital research in the humanities. While the OCHRE Data Service will provide consulting and research support and the OPS editorial support, the Library will provide the essential infrastructure for viewing, archiving, and discovering this data. Once instantiated, the Forum will also serve as a hub for the following existing units in the humanities.

For over ten years, the [OCHRE Data Service](#) has supported the OCHRE database environment, used by UChicago faculty as well as researchers from other institutions. OCHRE staff work with researchers to model and analyze data in the humanities. Its over 60 research projects range from archaeological material such as the [Ras Shamra Tablet Inventory](#) of cuneiform tablets to the [CATASTO collection](#) that maps tax documents from 1427 Florence in order to transform the tax data into a visual representation of the city's social demography. OCHRE runs on the Library's professionally managed server environment that meets campus security requirements.

The Online Publication Service (OPS) will provide a peer-review process for publishing research data in the humanities. By certifying the quality of these digital publications, OPS strives to resolve a long-standing and widely acknowledge deficiency in digital humanities, the valuation of digital work for tenure or other career advancement. The OPS will curate data in the OCHRE platform and make the volumes available to the public as open data on UCNode. The partnership between OPS and the Library guarantees that digital publications will be durable and citable.

The [ARTFL Project](#) is a cooperative enterprise of the Laboratoire ATILF (Analyse et Traitement Informatique de la Langue Française) of the Centre National de la Recherche Scientifique, the Division of the Humanities, and the UChicago Library. Its PhiloLogic software is a full-text search, retrieval, and analysis tool that serves as an interface for a database service to make a wide variety of French and other language materials available for text mining and inter-textual analysis to 300 subscribing institutions. It additionally provides a wide array of collections that are openly available as well as providing Philologic as open-source software that researchers can run on their own local collections. ARTFL's production databases are developed by Humanities faculty and staff and run on Library servers.

These collections are heavily used by faculty and students at UChicago, especially the Digital Media Studies program, but they also have much broader audiences both locally and internationally. For example, in the last month, the UChicago Photographic Archive had 16,000 user sessions from over 56 countries. In 2021, ARTFL databases were queried 19.3 million times from on and off campus. In the past 12 months, the OCHRE Data Service received almost two million requests, while users at over 100 institutions logged into OCHRE nearly 9,000 times to curate research data.

By making collections created across UChicago easily discoverable and offering tools and improved interfaces both for human and machine access, the project will significantly improve the services and increase (re)use and impact. It will also make it easier for those new to the (digital) humanities to engage with collections and tools. To facilitate this, the project will provide tutorials, sample data queries and datasets, and code in electronic notebooks that step learners through exploratory analysis of datasets.

Once this integrated infrastructure is in place, scholars researching the history of housing on the South Side of Chicago could easily discover videos from the [Guerrilla TV project](#) on the [demolition of Cabrini Green](#), digitized documents from the [Ida B. Wells archival collection](#) on the Chicago Housing Authority's Ida B. Wells Homes, and historically-relevant georeferenced maps from the NEH-funded [Mapping Chicagoland](#) project onto which they could build data layers from their research in order to visualize urban change. Similarly, linguists could access UCNode to, for example, investigate and analyze the use of verbs in a chosen semantic domain from a range of texts such as Sumerian myths to the Middle English narrative poem *Piers Plowman* to 19th century French philosophical treatises.

The Library-Humanities partnership at the core of this proposal provides advantages to scholars creating and collecting digital content. Currently, faculty interested in adding digital techniques to their research often set out on their own, building redundant infrastructure that is difficult to maintain. Just during the process of developing this grant, we discovered several projects at UChicago that had effectively duplicated functionality of OCHRE and ARTFL. Such projects do not always follow best practices, for example with regards to accessibility, and are not built with a clear route to persistent access. The partnership provides a pathway through the UChicago Forum on Digital Culture for consulting with the Library for archiving and discovery. It will provide a technical platform to enable humanities scholars to focus on the content of their collection building and research, rather than the development of new infrastructure. To support uptake, project partners will jointly promote the service and engage across and beyond the campus. The project will sponsor scholarships aimed at showcasing the UCNode potential, for example through partnering with the [Neubauer Collegium](#).

Going beyond the campus, civic engagement is a strategic priority for the University and the [Library's strategic directions](#). Outreach that leverages the Library's participation in the [Black Metropolis Research Consortium](#) (BMRC) and the [Chicago Collections Consortium](#) will provide opportunities for constituents interested in the City of Chicago's cultural heritage, including underserved groups and K-12 students. The BMRC's Executive Director has recently taken on the leadership role in Community Engagement for the Library, including work with public schools and the Chicago Public Library as well as community organizations on themes such as information literacy, local history, and digital community archiving. Another partnership is with the [Invisible Institute](#), a journalism collective that is now scoping a project with the Library to improve curation and sharing of its growing collection of datasets related to policing on Chicago's South Side. These and other projects under the University's civic engagement strategy would significantly benefit from the online resources and capabilities that would be made available through UCNode, for example by providing subsets of data and tools optimized for teaching in schools as well as the overall improvement to discovery and user experience.

Long-term impact and institutional commitment

The University of Chicago has ambitious plans for increasing not just its scholarly but also its societal impact, and the humanities will play an important role here. Upon taking office in 2021, President Alivisatos [outlined his vision](#) of the "engaged university" that aims to partner and make an impact locally as well as globally. A key contribution will be the inauguration of the UChicago Forum on Digital Culture in the Humanities Division. This Forum will have five areas of humanistic research, teaching, and public engagement: Digital Media Studies, Digital Texts and Communication, Digital Ethics and Public Discourse, Digital Archaeology and Environmental Studies, and Computational Linguistics and Cognitive Science.

An important ambition of the new Forum is the development of the Online Publication Service (OPS) to provide a peer-review process for publishing research data in the Humanities. OPS is being built in collaboration with the Library and the University Press to ensure long-term sustainability. In parallel, the Library has established a Center for Digital Scholarship (CDS) to deliver on its strategic directions to

'Advance Digital Scholarship' and 'Enhance Access to Scholarly Resources'. CDS is in the process of providing a self-service digitization lab to meet the growing demand to convert books, images, tapes, and video into digital formats that can be used as data. The CDS will welcome its UCNode partners as well as community partners to leverage the CDS facilities and expertise.

The success of these initiatives, as well as that of humanities research at and beyond UChicago, would be greatly enhanced by UCNode. It will significantly increase access to and (re)use of its digital collections across and beyond the campus. It will further increase their impact by providing tools for analysis as well as a platform where outputs of this research can be preserved. UCNode will provide a wealth of digital material that can be used for teaching and research at the UChicago Forum on Digital Culture and humanities more broadly, making it easy for faculty and students to identify and work with relevant content. It will offer a long-term home for content created as part of research and teaching, through further Library digitization, as well as content contributed by partners from outside the University. The new OPS service will build on UCNode components, including the digital preservation element.

UCNode will place disparate collections in conversation with one another through cross-collection searching. The ability to deploy sophisticated queries across digital collections aligns with trends in digital humanities studies that interrogate media at scale. Further supporting these lines of inquiry will be tools that facilitate exploratory analysis, data visualization, and API access. API access combined with clear rights information will allow others to integrate UChicago content into their tools and services, opening up the collections further beyond the campus. A focus on accessibility and user experience will further increase access to collections and allow UCNode to feature prominently in community engagement activities – not just for access to UChicago content, but also to provide a sustainable home to digital community archives (which in turn will drive new humanities research).

As important as the technical infrastructure will be the deepening of partnerships across and beyond the campus, and the knowledge sharing and collaboration resulting from it. This has already become evident through the planning for this project that has led to a better understanding of services and collections across units. These collaborations will strengthen the ability of the project partners to perform, analyze, share, and preserve digital research.

The Humanities Division, the Library, and the University are committed to indefinitely sustaining content, infrastructure, and partnerships. This will include the creation of new permanent roles such as a new Digital Collections Librarian position as a direct result of the UCNode planning conversations. UCNode will also establish a model that the Library will follow for collaborations with other humanities projects as well as with other disciplines and divisions across UChicago, adding additional nodes over time.

Digital infrastructure project planning and activities

The current infrastructure for the existing major systems (described below) will remain in place, but will be enhanced. Key new elements to be built [see diagram Additional Supplemental Documents] include a Metadata Store, a Search and Browse Discovery Layer, and an Access Interface.

The Metadata Store will be based on the Europeana Data Model (EDM). EDM is a linked-data model where required elements enable provision of a consistent cross-collection discovery layer but additional elements allow the reflection of the uniqueness of individual collections. EDM forms the basis of the data model used by Europeana and the Digital Public Library of America (DPLA). The UCNode Metadata Store will therefore employ a data model used by two of the world's largest metadata aggregators. Pipelines to transform original metadata into the common data model will be created so that data can be fed from the Library's collections, OCHRE published collections, and ARTFL public collections. Original

metadata from each data deposit will be retained, partly to establish the provenance of the derived EDM metadata, and partly as original data documents in their own right.

The Search and Browse Discovery Layer will allow deep dives into individual collections or broad, cross-collection searching. This layer will be an expansion of existing search and browse technology in the Library's digital collections (described below).

The Access Interface will allow users to consume data in three different ways: 1) templated, format-based object display interfaces (e.g., an image displayer, audio streamer, etc.); 2) an open access bulk-download service that will allow users to identify openly accessible data sets either by collection, format, or by various search criteria and then download packages of the relevant data and metadata; and 3) an API-based interface that will allow direct API access to the data and metadata as well as a suite of tools that can provide built-in ways to start using the collections as data. Collections in OCHRE, ARTFL, and the Library will feed into the Search and Browse and Access Interfaces. Machine-actionable rights and access information will allow the system to restrict access to collections as appropriate.

The Library's current digital collections system is based on MarkLogic, a multi-model document and data publishing platform. It handles a variety of document types and data models including archival and manuscript finding aids which use the EAD XML schema; digital collections using the Europeana Data Model, and other, XML-based, metadata collections. Delivery of digital images (image and map collections, and digitized books) is done using IIIF, which is a set of open standards for delivering high-resolution digital images. Delivery of audio and video materials will be done using the campus-supported Panopto streaming platform. Templates for the display of digital objects are built to meet ADA-compliant Web Content Accessibility Guidelines (WCAG) 2.0 AA standards. Digital assets are preserved in the Library Digital Repository (LDR), which arranges preservation objects according to the [Oxford Common File Layout (OCFL)](#) on a ZFS-filesystem on late-model hardware which is backed up locally and replicated to remote cloud storage. See the Data Management Plan for a full description. The majority of the Library's digital collections were built on older technologies (e.g., Greenstone, XTF, etc.) and we plan to migrate all of these legacy collection into the new system.

The OCHRE database is an integrated suite of computational tools for working with all kinds of data through all stages of research, allowing complex and hierarchical modeling of data that fits the needs of the research project. OCHRE has a powerful graphical user interface (GUI) for entering, viewing, and organizing information from many different sources, and for combining, analyzing, publishing, and preserving the information. The OCHRE application is supported by the OCHRE Data Service, a team consisting of faculty and staff in the Humanities Division who also work with researchers on modeling their data in the system. System administration for the OCHRE application is provided by Library staff in the Digital Library Development Center (DLDC). Digital assets described within OCHRE can live outside the system and some, but not all, of these collections are being preserved by the Library. This project will support the migration of additional assets into the LDR preservation repository. Researchers can build custom web interfaces for their data, but the OCHRE system currently has a basic set of templates for easily publishing OCHRE data to the web. This project will build additional templates and will update display components (e.g., integrating IIIF for enhanced and faster image display) to ensure ADA-compliance and modern UX standards. Templates will also be built for the five OPS series that are optimized for each type of data.

The ARTFL Project supports a collection of databases that use Philologic, a full-text search, retrieval and analysis tool using an XML database/search engine/web app designed for TEI XML. While the focus of its database is primarily French literary and other texts, ARTFL is able to serve up any language corpus using the Philologic system. ARTFL is developed by faculty and staff in the Humanities Division; system

administration is provided by Library staff in the Digital Library Development Center (DLDC). Metadata for ARTFL collections will be mapped to EDM and made available through the Metadata Store.

Currently, the majority of Library digital collections can theoretically be accessed freely, but in practice access is hindered by a lack of a unified discovery, the lack of a bulk download function, and by inconsistently applied rights statements which are typically only applied at the collection and not at the item level. The Library's goal is to release all of its collection open access under Creative Commons (CC) licenses, especially CC BY, except in the small number of cases where copyright or ethical issues require some level of restriction. Collections in OCHRE are a mix of publicly available data and data that is restricted to a particular research group. Because OCHRE provides a research environment, data is often held close while it is still in development; however, we envision that improved publishing templates may encourage data publication earlier in the research lifecycle. ARTFL contains a mixture of subscription-based and publicly available datasets. An important system component to be built will be the addition of metadata fields to record access information at the item level so that the system can automatically know how to present different data to the user depending on its rights information. The Library will provide consultations to researchers on copyright, CC licenses, and best practices in open data.

To facilitate access by the widest possible audience, UCNode interfaces will be ADA-compliant following (WCAG) 2.0 AA standards. The Library has developed extensive expertise in ADA standards for web sites and the campus Center for Digital Accessibility offices are in the main Library building. However, too many of the Library's digital collections were built before this expertise had been developed (and some even before the standards existed), and the same is true for many faculty research projects.

Campus outreach activities to develop user understanding of the system capabilities will consist of: (1) instruction on using the interface and API to discover, access, and explore the collections for faculty, students, staff, and community members; and (2) direct consultation with humanities departments and individual researchers on the ingest of research collections. We will identify PIs on new projects who could use the UCNode infrastructure and will provide example language describing the system and best practices in data management that can be used in new grant applications.

The data management plan is based on the Library's existing Library Digital Repository (LDR), a standards-compliant preservation repository which currently holds 162 TB of files in an on-premise server room with local backup and replication to two separate cloud locations. Use of the LDR will be extended to all of the digital assets in this new coordinated platform, with plans already underway to increase capacity by a petabyte of storage.

A number of potential risks can be envisioned: (1) Coordinating across partnerships can be challenging; this will be addressed by regular meetings of technical personnel, to address technical issues, and of the oversight council, to ensure that common goals are being met, that the project management is effective, and that active support from the Deans of the Library and the Humanities Division is being maintained. Also, ARTFL, OCHRE, and the Library have a history of working together effectively. (2) Recruitment of IT staff can be difficult; we are prepared to pursue the use of contractors, and interns from the Department of Computer Science, with both of which the Library has had success. (3) Loss of key staff is another risk, which will be managed by the preparation of extensive documentation and collaboration across individual roles; people will work in teams, not alone, to allow others to step in if necessary. For example, the Digital Collections Librarian (a permanent position) will be prepared to step into the role of the Project Manager (a grant-funded position). Similarly, the roles of other technical personnel will have those who are prepared to step in. This is how the Digital Library Development Center (DLDC) currently operates, so the process is a familiar one. (4) Finally, there is a potential for lack of academic engagement, which will be mitigated by the strong support from the Deans, the identification of academic champions, and the long-standing partnerships that underlie this project.

Financial capacity and fundraising

As a major research university, the University of Chicago has the research administration, legal, and subject matter expertise to be fully capable of administering federal funds in compliance with all regulations. UChicago's annual total operating costs for FY21 were $5,141,502,000 ($2,861,737,000 in compensation, $2,279,765,000 in other operating expenses). Total operating revenue (including private gifts, government grants, and patient care) was $5,214,514,000.

UChicago was established in the spirit of philanthropy through the generosity of John D. Rockefeller and Marshall Field, and has since continued in this tradition. The Inquiry and Impact Campaign, which was publicly launched in 2014, secured $5.43 billion from nearly 165,000 donors when it closed in 2020. Today, the University averages $570 million annually in philanthropic cash and pledges. The current emphasis is building a pipeline of principal gift ($5 million+) and mega gift ($25 million+) prospects.

The Alumni Relations and Development (ARD) department currently has approximately 470 staff and is led by an executive team of 10. ARD is structured with both a Central team of generalist fundraisers at the principal gift, major gift and annual giving levels supporting projects across UChicago, as well as dedicated teams embedded in the various divisions. During the current fiscal year, ARD has set its annual fundraising goal of delivering between $550 million and $600 million in cash and pledges.

For this project, the Library's Development team will take the lead in collaboration with ARD colleagues embedded in the Division of the Humanities and Oriental Institute, as well as the generalist fundraisers in the Central team and the Assistant Vice President for Alumni Relations and Development (Humanities and the Arts). Over the past four years, the Library, Humanities Division, and Oriental Institute have averaged $4 million, $13.7 million, and $2.8 million respectively in annual philanthropic income.

The plan is to start cultivating and soliciting individual major donors ($100,000+) already close to UChicago with identified interests in the Library, Humanities, and/or digital. Current discussions with donors show that the opportunity to support a transformative change in humanities research at UChicago resonates: one donor has already committed $100,000, with another $100,000 likely to follow if the NEH bid is successful; another donor has given $8,000 to support the development of this bid and invited the project team to a visit to discuss how they can support the actual project.

The fundraising plan will start with major donors to galvanize other support and then progressively add mid-level donors and annual givers (see Fundraising Plan). Although it is anticipated that the vast majority of the funding for the project will be secured from individuals, there may be opportunities through bequests and private institutional sources:

- Bequests are the most reliable source of unrestricted Library income, with an average of $1 million contributed annually. If needed, bequests will go towards the matched requirement.
- The Library will launch the recruitment for an Associate Director of Development in autumn 2022, a role that will focus on additional private funding sources for the project.

Project and fundraising personnel

PROJECT OVERSIGHT AND MANAGEMENT

Torsten Reimer, University Librarian and Dean of the University Library (Division: Library). Reimer will serve as the PI. (See attached CV)

Miller Prosser, Associate Director of Research and Publications in Digital Studies (Division: Humanities) will serve as co-PI, managing the development of the OPS. (See attached CV)

Project Manager (1) (7/2023 – 6/2027) Grant-supported position to be hired to manage project planning, including coordination among the units involved. (See attached Job Description)

Charles Blair, Director, Digital Library Development Center (Division: Library). Blair will oversee the technical staff in the Library. (See attached CV)

Sandra Schloen, Technology Director for Digital Studies, Humanities Division, and Manager of the OCHRE Data Service, overseeing OCHRE-related development tasks. (See attached CV)

Clovis Gladstone, Senior Research Associate and the Associate Director of ARTFL (Division: Humanities). Gladstone serves as the lead developer of the PhiloLogic software and will oversee ARTFL-related development tasks. (See attached CV)

TECHNICAL DEVELOPMENT (See attached job descriptions for all these positions)
Senior Software Engineer (1) (7/23 – 6/27). Grant-supported position to produce core code that can be extended by non-senior developers. Implement open-access (OA) bulk download interface.

Software engineers (2) (1/24 – 6/27). Grant-supported positions to code the discovery and display API layer between the web front-end components and the EDM Metadata Store, the IIIF and the Panopto components, and build the pipelines between the different parts of the system. These positions will work with data coming from Library, OCHRE, and ARTFL collections.

Web Designer/User Researcher (1) (7/23 – 6/27). Grant-supported position to develop wireframes for UI/UX testing before coding begins, ensure ADA compliance, and execute the overall design. The position will work on design of displays for both Library and OCHRE materials.

Web Developers (2) (1/24 – 6/27). Grant-supported positions to design and code web front-end components. One Web Developer will be focused on Library materials and one on OCHRE materials.

Migration Specialists (2) (7/23 – 6/27) and **(1)** (1/25-6/26). Grant-supported positions to prepare and migrate existing digital collections that will be moved into the infrastructure.

System Administrator (1) (7/23 – 6/27). Grant-supported position to manage the data preservation component, including backups, replication, fixity checking, software and security updates, and periodic reporting on repository growth and composition.

OUTREACH AND USER SERVICE DESIGN
Cecilia Smith, Director of Digital Scholarship (Division: Library). Smith will oversee outreach and user engagement. (See attached CV)

Digital Collections Librarian (Division: Library). The Library will be advertising this permanent position in late 2022 to engage with faculty, students and the public around UChicago digital collections.

Carmen Caswell, Digital Humanities Research Liaison (Division: Humanities Division). Caswell assists faculty and researchers across the Humanities Division with all aspects of digital research projects. Caswell holds a Master's in Library and Information Science from the University of Illinois at Urbana-Champaign with a specialization in Data Curation.

Bridget Madden Associate Director, Visual Resources Center (Division: Humanities Division) Madden convenes the Campus Digital Collections Managers group, bringing the perspectives of digital collections practitioners to the project. Madden holds an MLS from the University of North Carolina at Chapel Hill.

FUNDRAISING
Jason Smith, Assistant Vice President for Development (Humanities and the Arts) (Division: Central Alumni Relations and Development Team). Smith oversees University-wide fundraising for arts and humanities divisions. (See attached CV).

Amber Cullen, Director of Development and Associate Dean (Division: Library). Cullen leads the University of Chicago Library's fundraising and alumni engagement activities. (See attached CV)

The project will be guided by a council of stakeholders with direct involvement in UCNode components, including the Co-Investigators, David Schloen (Professor of Near Eastern Archaeology and Director of the Program in Digital Studies of Language, Culture, and History), Robert Morrissey (Professor of French Literature, and the Committee on Interdisciplinary Studies in the Humanities, Director of ARTFL). At regular intervals, the council will meet as an expanded advisory group of internal and external experts (including Dan Cohen [Vice Provost for Information Collaboration, Dean of the Library, and Professor of History at Northeastern University], Sarah Ames [Digital Scholarship Librarian at the National Library of Scotland and lead for Data Foundry], James T. Sparrow [Associate Professor of History, UChicago] and Patrick Jagoda [Professor of English and Cinema and Media Studies, UChicago]).

Deliverables, outcomes, and sustainability

Deliverables:
- Build the UCNode integrated infrastructure with cross-collection discovery, open-access bulk download capacity, an ADA-compliant web front end, and a preservation backbone.
- Migrate 200+ existing legacy digital collections into UCNode including mapping of metadata into a consistent representation for the EDM Metadata Store, and for the LDR preservation repository.
- Develop outreach materials, including guides, Jupyter notebooks, and other tools to help users get started with digital analysis of Humanities collections, and establish a service model that optimizes the expertise of each partner.

Outcomes:
- Users will have one place to go to discover all available digital collections;
- Users will more easily be able to access and download digital assets for their own analysis and digital scholarship, including clear rights information and bulk download;
- Users new to digital humanities will have guides and tools to help them get started;
- UChicago scholars wanting to build digital collections or do digital humanities research will have an infrastructure they can use instead of building siloed solutions;
- Easier access to UChicago resources will strengthen community engagement and partnerships;
- The wealth of legacy collections at UChicago will be made available in modern, sustainable, and accessible interfaces.

Sustainability:
The Library and the Humanities Division are committed to sustaining the collections and services that will form UCNode, and they have a long track record of doing so. In the case of ARTFL, this joint Library-Humanities funding goes back almost 40 years. UCNode fully supports the strategic aims of the project partners and the University, and the Deans of Library and the Humanities are making investments to ensure the ongoing sustainability of UCNode. Once the grant-funded development and migration work has been completed, both the Library and the Humanities Division have permanent staff who will continue to support systems that are integral parts of UCNode; this includes the Digital Library Development Center (DLDC), the ARTFL Project, and the OCHRE Data Service. The Library is already committed to funding and hiring a new Digital Collections Librarian position that will be critical for continuing outreach and guiding the creation of new digital collections. To grow its digital capabilities and add future nodes, the Library will also explore making one of the technical positions permanent after the grant ends. Crucially though, project partners already have the resources in place to keep operating their services; through the grant we are seeking funding to enhance them.