NATIONAL ENDOWMENT FOR THE HUMANITIES

OFFICE OF DIGITAL HUMANITIES

Narrative Section of a Successful Application

The attached document contains the grant narrative and selected portions of a previously funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations. Program guidelines also change and the samples may not match exactly what is now required. Please use the current set of application instructions to prepare your application.

Prospective applicants should consult the current Office of Digital Humanities program application guidelines at https://www.neh.gov/grants/odh/digitalhumanities-advancement-grants for instructions.

Applicants are also strongly encouraged to consult with the NEH Office of Digital Humanities staff well before a grant deadline.

Note: The attachment only contains the grant narrative and selected portions, not the entire funded application. In addition, certain portions may have been redacted to protect the privacy interests of an individual and/or to protect confidential commercial and financial information and/or to protect copyrighted materials.

Project Title: Powering Digital Humanities Teaching and Learning with Static Web Approaches

Institution: University of Idaho

Project Directors: Olivia Wikle, Kate Thornhill (University of Oregon), Gabriele Hayden (University of Oregon)

Grant Program: Digital Humanities Advancement Grants, Level I

List of Participants

Project Team

Project Directors

Olivia Wikle, Digital Initiatives Librarian at the University of Idaho. As a project director, Wikle will lead grant project management and communications for the University of Idaho. The details of this work include keeping the grant on track to meet deadlines for grant reporting, day to day grant operations coordination, and project dissemination. Additionally, Wikle will work directly with the UI instructors alongside her UI librarian colleagues and lead documentation efforts for UI learning sequences.

Kate Thornhill, Digital Scholarship Librarian at the University of Oregon. As a project director, Thornhill will lead communications for the University of Oregon. She will lead the digital pedagogy directions for learning sequences for the course associated with the UO. Additionally, Thornhill will direct program development, coordination, and communications for the project's convening.

Gabriele Hayden, Research Data Management and Reproducibility Librarian at the University of Oregon. As a project director, Hayden will lead development of the foundational static web development learning sequence, which will serve as a library workshop series and will be integrated as a starting point for the project-specific learning sequences.

Technical Developers

Because of their experience as CollectionBuilder technical developers, two UI librarians will lead the creation of code templates for each learning sequence:

Devin Becker, Head of Data and Digital Services at the University of Idaho
Evan Peter Williamson, Digital Infrastructure Librarian at the University of Idaho

Collaborators

Instructional Designer

Rayne Vieger, Open Educational Resources and e-Learning Librarian, University of Oregon. As an open pedagogy instructional designer, Vieger will work directly with librarians and course instructors to apply best practices to the development of the learning sequences. Her guidance and consultations to create modules, lesson plans, and tutorials that support novice learners will enhance how the creation of digital humanities projects in the classroom resonate with evidence-based learning.

Course Instructors

Course instructors consist of faculty from the University of Idaho and the University of Oregon who are engaged with digital humanities methodologies in their English or History classrooms. All course instructors have agreed to develop a learning sequence for incorporation into one of their Spring 2022 courses. All instructors have submitted letters of support for the grant project.

Mattie Burkert, Assistant Professor of Digital Humanities at the University of Oregon
Matt Fox-Amato, Professor of History at the University of Idaho

Rebecca Scofield, Assistant Professor of Twentieth Century American History at the University of Idaho
Adam Sowards, Professor of Environmental History at the University of Idaho

Advisory Board

UI and UO librarians will collaborate with instructors to determine invitations for two advisory board members. Board members will be librarians or humanities faculty that have particular interest, practical experience, and/or established research in digital literacy and pedagogy. We've elected to wait until starting the grant period to invite advisory board members because we believe that after beginning development, we will have a better idea of the expertise that our project needs and will be able to use this knowledge to create an advisory board that will strengthen our project.

Project Narrative

Enhancing the Humanities

The University of Idaho (UI) Library and University of Oregon (UO) Libraries seek support of a Level I Digital Humanities Advancement Grant in the amount of $49,919 to create, test, evaluate, and release curricular learning sequences for humanities courses that use minimal computing concepts and static web technologies to enhance student experience with humanities data, web technologies, and collaborative development. This work will build upon the success of the University of Idaho's Institute of Museum and Library Services (IMLS)-funded work with CollectionBuilder[1] and other static web tools by moving the focus from library work to the humanities classroom. The project team will work with four humanities faculty members and each other to **create** five reusable learning sequences, including a foundational learning sequence that will address core web and data literacies while serving as an 'on-ramp' for our four, subject-specific learning sequences that will focus on digital collections, oral histories, text analysis, and digital humanities project reproducibility and preservation. All learning sequences will be **tested** via classroom delivery, **evaluated** the following summer during a joint convening of project participants and two external project advisors, and then revised and polished for **release**, promotion, and reuse after incorporating feedback from the classroom and convening.

Static website generators, such as Jekyll, offer an alternative to dynamic web applications by creating complete websites composed of "static" HTML, CSS, and JS files that can be served from any web directory. They do this by iterating over a structured folder of files containing content, templates, configuration options, and data that are typically contained in one repository that can be stored and edited on GitHub, GitLab, or other code hosting sites. Static generators' low server requirements remove barriers to online publication commonly encountered with web projects—our templates, for instance, will be freely available and publishable via GitHub Pages—while also creating projects that are collaborative, reusable for other purposes, and preservable for future use and study.

These benefits suggest that the static web development style would be especially optimal for classroom digital humanities (DH) projects, given many instructors' struggles with initial project set up, ongoing maintenance requirements, project preservation, and frustration with lack of customization options. As such, we will draw on our expertise as static web developers and educators to develop the foundational learning sequence in such a way that it addresses common conceptual hurdles we have previously observed. We will then work with our collaborating instructors to produce learning sequences that teach the life-cycle of a digital project, from data collection to multi-modal interpretation, while also accomplishing more subject-specific learning outcomes. To ensure effective reuse, we intend to invest a great deal of our time on developing the instructions and documentation necessary to enable their adoption by other disciplinary faculty and librarians who are invested in expanding students' digital and data literacy while teaching humanities content.

This investment in making the learning sequences easy to use for instructors will facilitate our accomplishing that more difficult goal of expanding humanities students' digital and data literacies more broadly. Our ultimate goal for these projects is that they will enable students to make those same conceptual leaps in regards to digital technologies and culture that they might make in any humanities class—from passive consumption of material to critical engagement with it. More specifically, students will learn spreadsheet management, version control, basic coding, and other digital skills through engagement with static web technologies and data structures, and by seeing these skills lead to the development of substantial, interactive web projects students will be empowered to bring the same spirit

of critical inquiry that they focus on humanities content to their understanding of the tools and processes they use to manipulate and share digital content.

Environmental scan

Technical **-** The concepts and technologies that will be taught in these learning sequences, including version control and static web concepts, are complex and often confusing. In their work promoting CollectionBuilder, the UI librarians have seen a great deal of frustration with those asked to begin understanding, for instance, the difference between 'making a commit' and 'saving a file.' They have also seen, nevertheless, that once these concepts are grasped and reiterated through practice, participants gain a newfound feeling of agency when it comes to data transformation and web development. With this grant, we are hoping to develop means for encouraging that type of learning for humanities students and instructors as we believe it is imperative that students of all disciplines gain foundational data and web literacies to better understand the socio-technical systems they use both within and outside of educational contexts.

Currently, when instructors implement DH projects in the classroom, they often teach students to use tools and platforms that invite a "buttonology" approach to instruction, in which students learn the specifics of an impermanent interface without gaining core computational, data science, and web development skills that are transferable to other aspects of their education and daily lives.[2] Partly, we believe this is the result of the tools, such as Omeka and Scalar, commonly being used for DH instruction. While these tools are effective in their own right, they often require extensive server infrastructures that prevent any real investigation of the powerful algorithms and data transformations driving the websites' productions. Static web templates, and their development models, in contrast, allow for and encourage scaffolded learning opportunities in relation to the many pieces of technology that go into producing data driven websites.

Few static web templates exist, however, that are geared specifically toward DH instruction. Some notable exceptions are Ed, for publishing digital editions, and Wax, for creating digital exhibits, both of which subscribe to a "minicomp" (minimal computing) philosophy and are specifically designed for educational use, as well as the CollectionBuilder and Oral History as Data templates (see Appendix C for details) developed by the UI library. Each of these templates has been presented via workshops at national DH conferences and training sessions in the past several years,[3] demonstrating that the DH community sees a need for these tools in addition to the pedagogical platforms already established.

Pedagogical **-** In developing these learning sequences, we will establish learning goals and assessment techniques prior to designing code templates and documentation, following principles of the "backwards design" pedagogical framework[4] which encourages instructors to make learning objectives explicit to students prior to beginning a project and in turn allows students to understand the criteria on which their work will be judged.

Our pedagogical design will also be informed by the Carpentries project, which offers scaffolded online tutorials on various data science and coding skills to novice learners. Most importantly, Carpentry instructors are taught how to teach a lesson's content. We will model our learning sequences in this fashion, including documentation not only for students, but also for instructors to guide them through the teaching process and ensure they have access to external resources on unfamiliar technical concepts.

History of the project

Aided by IMLS funding, over the past two years UI librarians have established CollectionBuilder, a static web digital exhibit platform, as a digital collections solution[5] for libraries and cultural heritage institutions that desire more control over their collections' design and data. In addition to refining the tool's code, UI librarians have expanded its community of practice and use cases by teaching CollectionBuilder at national and international conference workshops, developing extensive text and video documentation and implementing it in DH contexts.[6] Through these pedagogical experiences, they have been increasingly intrigued by the possibility of applying their lightweight, static web development philosophy towards developing sustainable DH projects for the classroom that facilitate students' critical introduction to data and digital literacies while allowing for the creation of discipline-specific interpretive material. Similarly, UO librarians recently developed an interest in applying new pedagogical models for the DH classroom after receiving Carpentries training and saw in CollectionBuilder a template to help them advance their approaches. Through emails and conversations related to consorital work for the Orbis Cascade Alliance, the librarians from both institutions recognized a common goal and recruited History and English faculty at both UI and UO who have previously expressed a desire to incorporate DH projects into the curriculum that provide students with an opportunity to gain more broadly transferable technical skills and knowledge. The grant participants believe support of Level I funding will provide us with time and resources to explore our shared interests in creating expansive learning opportunities for the DH classroom that incorporate pedagogical best practices.

Activities and project team

Project Plan - The period of performance for this project will span 12 months and will include the following activities:

1. Librarians and instructional designer **create** foundational static web development learning sequence
2. Librarians, instructors, and instructional designer **create** project-specific learning sequences
3. Instructors **test** learning sequences in the classroom, with librarians' support
4. Librarians, instructors, and advisory board members meet for three days to **evaluate** teaching experiences and revise code and documentation
5. Learning sequences (including project template code and documentation) are **released** on GitHub for wider use

Personnel **-** UI librarians (Olivia Wikle, Devin Becker, Evan Williamson) will bring their expertise in digital pedagogy and web application development to the project. UO librarians (Kate Thornhill and Gabriele Hayden) will contribute expertise in digital literacy, data literacy, and backwards instructional design for online learning. Project Directors Wikle, Thornhill, and Hayden will plan and organize project activities, lead documentation, and ensure deadlines are met throughout the grant period. Becker and Williamson will serve as Technical Leads, guiding the development of each project template's code. UO librarian Rayne Vieger will serve as a collaborating instructional designer. Librarians' time on this project will be compensated by using grant funds to cover a portion of their salaries as indicated in the project budget.

Three UI History faculty (Rebecca Scofield, Adam Sowards, Matt Fox-Amato) and one UO English faculty member (Mattie Burkert) will participate in the project as instructors. Their time and work on the project will be compensated with honoraria from the grant funds. Once development has begun and

we have an idea of which aspects of our learning sequences are in need of external feedback, UI and UO librarians will identify and invite two advisory board members to provide input on the project. The advisors will be librarians or humanities faculty that have particular interest, practical experience, and/or established research in digital literacy and pedagogy, and they will be invited to participate in a summer convening to discuss the project outcomes and next steps and to provide feedback on the learning sequences. Their contribution and advice will be compensated with honoraria from the grant funds.

Evaluation - We will evaluate the success of the learning sequences after their first classroom implementation, during a summer convening of the project's librarians, instructors, and advisory board members (see Appendix B for convening details). This evaluation will be based on instructors' assessment of students' projects using learning outcomes developed in the initial months of the grant period, as well as anonymous student surveys and instructor feedback. We will revise the code and documentation accordingly after this evaluation and before releasing the learning sequences. Our final evaluation of the grant project will consider the number of students taught and the quality of the projects produced by students, and will note how the learning sequences were revised as a result of the assessment and conversations that took place at the convening.

Final products and dissemination

Learning Sequences - The project team will develop five learning sequences. Each learning sequence will be composed of project template code and a documentation website that leads students and instructors through discrete steps to create a project website (see Work Plan for greater detail about each learning sequence). Project code will be hosted in repositories within a centralized GitHub organization and each learning sequence will include a demo site with step-by-step documentation in text, screenshot, and video format tailored specifically to both students and instructors. Each demo site will also contain an "About" page that describes our support from NEH, and credits the project team members that contributed to its design and development.

Dissemination - We believe that a central goal of this project is to continue to grow a community around static web tools for DH. To ensure DH practitioners' access to the learning sequences, and encourage their participation in using, adapting, and developing these tools, we will publicize our experience and products through a project website, publications, and presentations.

Project information will be disseminated via a website (statically generated, of course!) that provides a discovery mechanism and jumping off point for other faculty, librarians, and workshop instructors across the country to incorporate these learning sequences into their own instructional contexts. We also intend to publish at least one article on this project in an open access journal such as *Digital Humanities Quarterly* or the *Digital Library Federation (DLF) Pedagogy Cookbook* and to promote the learning sequences by presenting on the project at conferences such as the Association of Digital Humanities Organizations (ADHO) annual conference and the DLF annual forum.

Accessibility - All project code, templates, and documentation will be made openly accessible through GitHub and will be made compliant with Web Content Accessibility Guidelines (WCAG) Level AA to ensure access for users with impaired sight and impaired hearing. The design of the code and documentation for each learning sequence will follow a responsive method of web development using Bootstrap to ensure that each project is accessible across devices.

Work Plan

Below, we outline our timeline, describe our proposed learning sequences, and discuss project risks and plans for evaluation.

Timeline/Activities - Our work will span 12 months (September 2021-August 2022) and will be divided into the following activities:

Period	Activities	Responsible Parties
Pre-Award period	● UO librarians work with UI librarians to further their knowledge of the static web development process	UI Librarians, UO Librarians
September 2021	● Create foundational static web development learning sequence (see next page for details)	UI Librarians, UO Librarians, Instructional Designer
October-December 2021	● Create project-specific learning sequences (see next page for details) ● Establish learning outcomes for each learning sequence, to be used for assessment ● Librarians and instructors determine invitations for two advisory board members ○ Board members will be librarians or humanities faculty that have particular interest, practical experience, and/or established research in digital literacy and pedagogy	UI Librarians, UO Librarians, Instructors, Instructional Designer
January-May 2022	● Test and assess project-specific learning sequences as class projects during the Spring 2022 semester (see next page for details)	UI Librarians, UO Librarians, Instructors
May 2022	● Organize and prepare for convening	UI Librarians, UO Librarians
June 23-25, 2022	● Convening, held at the University of Idaho in Moscow, ID (See Appendix B for details and schedule)	UI Librarians, UO Librarians, Instructors, Advisory Board
June-July, 2022	● Evaluate learning sequence content and teaching experiences ● Revise code and documentation	UI Librarians, UO Librarians, Instructors
August 2022 - Post-Award period	● Release learning sequences via GitHub ● Disseminate and market project results via presentations and publications	UI Librarians, UO Librarians

Products

Learning Sequences - Each learning sequence will consist of two components: 1) scaffolded documentation for students and instructors that walks through a series of steps to produce a project, and 2) a project code template, hosted, cloned, and manipulated via GitHub to produce the final project in the form of a website.

Each learning sequence will follow a set of scaffolded steps, beginning by walking students through the thoughtful preparation of collection/project data (in the form of a CSV spreadsheet) and continuing with engagement with basic web and software development tools and techniques, including git, GitHub, text editors, static site generators and other frameworks and libraries. Finally, each learning sequence will invite students to further engage their data by writing *with* their projects, using markdown and basic programming snippets to reference their project's content, present their own critical interpretations of their project publicly online, and document their experience through the tool itself.

The first learning sequence we create will cover various foundational aspects of static web development. It will be used as a data and digital literacy workshop by UO librarians, and will also serve as the introduction to each of the project-specific learning sequences developed for the humanities classroom. The learning sequences are detailed below, accompanied by the name of each instructor who has chosen to collaborate on each project.

Learning Sequences	Possible Components	Context
Foundational Static Web Development	• Technical introduction to resources, including overviews of GitHub, git, HTML/CSS, Bootstrap, Github Pages, and Jekyll • Data management practices related to spreadsheets, file formats, and storage	UO Library data and digital literacy workshop Precursor to project-specific learning sequences below
Curating Digital Collections	• Select objects; create metadata • Build a digital collection using CollectionBuilder • Reflect and write about the collection on the project's website	UI undergraduate History course Instructor: Matt Fox-Amato, History professor
Visualizing Oral Histories	• Transcribe and tag qualitative interview transcripts • Upload and analyze transcripts using Oral History as Data's subject visualization tool • Reflect and write about the visualizations on the project's website	UI undergraduate History course Instructor: Rebecca Scofield, History professor
Text Analysis with Historical Documents	• Analyze text via topic modeling and other text analysis techniques • Reflect and write about the analyses on the project's website	UI undergraduate History course Instructor: Adam

		Sowards, History professor
DH Project Preservation	• Investigate, extract, and transform data from old DH projects into a reusable format • Use reclaimed data to produce websites and/or visualizations • Reflect and write about the process of creating a project's website	UO graduate English course Instructor: Mattie Burkert, DH professor

Instructors - The UI instructors have a history of collaborating with Wikle, Becker, and Williamson through UI's Center for Digital Inquiry and Learning (CDIL), and have a vested interest in incorporating DH activities into their classrooms. Each UI instructor has participated in CDIL's DH Summer Symposium, a weeklong workshop that introduces DH tools, concepts, and projects, and each has spent a semester as a CDIL faculty fellow, during which time they pursued a DH project or research. Similarly, as a professor of Digital Humanities, the UO instructor has expertise in digital project management and data reproducibility, and has collaborated with Thornhill to incorporate DH projects into her classroom.

Risks

We recognize the risk involved in planning an in-person convening while the threat of COVID-19 remains viable. We hope that by the time of the convening in June 2022, meeting in-person will be safe again. However, in the event that it is not, we will make plans to hold the convening virtually and allocate the funds for travel and lodging to cloud services, tech costs, and salaries and wages.

All instructors on this grant project have agreed to teach their learning sequences during the Spring 2022 semester. If these classes are postponed until after the grant period due to unforeseen circumstances, the librarians will still commit to providing support for the instruction. Instructors will still participate in the summer convening, even if they have not yet taught their learning sequence.

There is a risk that students in these courses will decide to drop the class once they know that a technical project is required of them. To facilitate instructors' ability to accommodate all levels of learning, we will develop the learning sequences with various options to accomplish the same goal. For example, instructors can offer students the choice between a more challenging means of interpreting a project (within a repository via markdown) and a more familiar way (in a Microsoft Word document). In this scenario, all students gain a foundation in data and digital literacy components, but there are viable options for those who want to learn additional web development skills as well as for those who prefer to use a more traditional assignment style.

Evaluation

We will develop a set of student learning outcomes for each learning sequence that instructors will use to assess each project. This assessment, in addition to feedback from student surveys regarding their project experience, will be used during the convening to evaluate the success of the teaching process, and influence changes made to the code and documentation of each learning sequence before their official release. Our final evaluation of the grant project will consider the number of students taught and the quality of the projects produced by students, and will note how the learning sequences were revised as a result of the assessment and conversations that took place at the convening.

Grantees will develop guidelines for storing and internal sharing of sensitive data, such as student assessments and learning analytics. In general, this data will be stored securely using encrypted laptops, FERPA-compliant cloud platforms such as OneDrive and Qualtrics, or secured library platforms. Grantees will release only high-level aggregate information as part of the project convening or articles written about the project. Grantees will follow NISO Privacy principles and bear in mind the high risk of re-identification of small data sets when defining appropriate levels of data security and anonymization.

Data type	**File types for archiving and sharing**	**License**	**Storage during project**	**Vehicle for public release**
Website documentation and learning sequences	.md, .html, lossless audio and video formats	CC BY-SA 4.0	GitHub (cloud storage), laptops	Zenodo archive of Github code with DOI, Webrecorder or ReproZip Web
Website code	.md, .html, .yml, .js, .json, .css, .csv, .scss, .svg, .git, .xml, .jpeg, .pdf	MIT	GitHub (cloud storage), laptops	Zenodo archive of Github code with DOI
Student assessment and learning analytics	N/A	N/A	Encrypted laptops and FERPA-compliant cloud storage	FERPA-protected. Aggregate, anonymized information may be shared in published narratives.
Student projects	.md, .html, .yml, .svg	TBD	GitHub (cloud storage), laptops	Students may choose to share classroom projects publicly via GitHub

Data storage and preservation of access

Learning sequences will use git and GitHub for version control and sharing. At least three grantees will keep up to date copies of the GitHub repositories on their laptops as backup. Long term access will be preserved via a GitHub "release" on Zenodo. This means that Zenodo will capture a snapshot of the GitHub repository, including all code and data.

Sustainability plan

Static sites are particularly sustainable precisely because they serve up websites based on plain text. Because they are still vulnerable to version changes in their supporting software, we will document versions of all software such that if the websites are not updated they will still be able to be re-created. At the same time, because of the stability and widespread adoption of Jekyll for static sites and the stability of the GitHub business model, we expect that these websites will continue to be use-able and accessible with minimal updating for at least 5 years. With two institutions and five librarians working on this project with fully shared administrative access, we hope to see these websites be sustained and updated far beyond the timeline of this project.