

*Expanding and Sustaining CollectionBuilder, A Digital Exhibit Platform and Static Web Development Model*

**University of Idaho Library**

The University of Idaho (U of I) Library seeks the support of an IMLS National Leadership for Libraries Project Grant in the amount of \$249,199 to sustain and expand the codebase and community that underpin [CollectionBuilder](#), a digital exhibit platform that utilizes structured metadata to programmatically generate websites for visualizing, browsing, and accessing collections. These funds will capitalize on the successful collaborations and enhancements the project team developed via their two-year [IMLS NLG Planning Grant](#) (2019-2021). With continued funding, the project team and a new, grant-supported digital scholarship librarian will: 1) maintain and improve the tool's existing codebase, documentation, tutorials, and related educational material; 2) build, support, and expand connections between current and future users of the platform, 3) further develop the ElasticSearch-based search application (CB-Elastic) they piloted during their planning grant, and 4) increase engagement and use of the platform by incentivizing feedback and adoption by librarian-developers and cultural heritage organizations.

CollectionBuilder offers a unique approach to building digital collection and digital scholarship websites. The tool generates discovery-centered user interfaces and interactive visualizations using collection data ('collections in context'), while simultaneously exposing that data in open, reusable formats ('collections as data'). Powered by static web technologies and deployed on lightweight infrastructure, CollectionBuilder uses [Jekyll](#) and a [JAMstack](#) approach to build complete websites from three basic components: a spreadsheet of well-formed metadata, a directory of assets (i.e. a folder of files), and a configuration file. This data-driven, minimal-computing-based approach offers a more secure, sustainable, and collection-focused alternative to traditional digital collection platforms, and, as our planning grant demonstrated, the approach it embodies is especially powerful for technically curious information professionals looking for agile alternatives to their current systems.

The project team used the IMLS Planning Grant to build, refine, and promote CollectionBuilder through testing, feedback, publication, teaching, and presentations. We met and consulted with colleagues from more than 30 different institutions, partnered officially with 4 of them, and connected with hundreds of individuals via online and in-person presentations and workshops, including two sponsored by the American Library Association. We also published about the project in several venues, including [Code4Lib](#) and [DH+ Lib](#), and we created a [robust promotional website](#) for the tool that features online video tutorials and [extensive documentation](#). We see our efforts to teach the tool reflected in its growing uptake: substantial traffic to the CollectionBuilder website, plus the proliferation of CollectionBuilder code in repositories across GitHub indicate that CollectionBuilder is serving the needs of information professionals around the world. The statistical and qualitative feedback we've received through this work has convinced us of CollectionBuilder's promise both as a digital collections & exhibit tool and as the base of an educational platform and development [methodology](#) that aims to expand the technical capacities of librarians more generally. That methodology, which we call Lib-STATIC, is currently centering a community of practitioners from across the US that are actively developing a web-based library of static concepts, tools, projects, and educational resources.<sup>1</sup>

**Statement of National Need: 1) The Opportunity Cost of Library Systems** -The capacities and expertise of librarians and information professionals are often thwarted by the design and adoption of enterprise systems. Librarians who manage these systems, be they meant to support digital collections, institutional repositories, or other platforms, spend much of their time learning how to use and troubleshoot the system rather than developing fundamental data and web development skills. This represents a great opportunity cost for the library profession overall, as the profession includes many that are inherently interested in the fundamental components of web/software development—data, classification, and representation—whose time is spent instead learning platform-specific interface features. In contrast, CollectionBuilder invites librarians and scholars to engage in a common software development model—using Git, GitHub, code editors, data files, html templates, and Jekyll's built-in development server—that empowers them to customize code and interactive elements without having to worry about damaging a production instance. The creative problem solving and web development skills that this type of educational experience enables can be applied to a variety of library tasks, from website design and publication to complex data transformations.

**2) 'Special' Collections Not Treated as Such** -As anyone who has spent time exploring them can attest, archival collections often come to mean more than the sum of their items. Most digital collection platforms, however, focus on item-level discovery and provide minimal description of collections themselves. As such, the platforms ignore the 'special' nature of the collections being displayed and fail to contextualize collection items or to engage non-specialist users. CollectionBuilder allows librarians to express the sum of a collection via its metadata-driven capacity to provide customized interactive features, and our recent focus on expanding the capacity for users to write *with* a collection via [multi-modal about pages](#)—curating collection data to tell the

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<sup>1</sup> We held an initial symposium of developers from Northwestern, New York University, and Columbia University this August to begin developing this web-based resource.

collection's stories—further expands stewards' ability to contextualize collections. The 'collections as data' imperative—making collection data available in flexible formats to drive machine reading and reuse—underlies much of our development, but our discovery-centered, 'collections in context' design model is just as imperative for us, putting renewed focus on context at the fore.

**Project Design:** We seek funding for 2.5 years to continue growing CollectionBuilder both as a framework and as the embodiment of our librarian-centric approach to development. During this time, we will identify solutions for sustainable community growth and development practices, while modeling CollectionBuilder as a viable alternative approach to digital collection infrastructure and delivering the learning resources necessary for others to succeed with the tool. To support this work, the project creators will recruit and hire a full time librarian for a two-year position who will help us manage communications, support, and code maintenance for the project. To assist with more complex, short term technical needs, particularly around the ElasticSearch-based pilot we developed during our planning grant, we will hire a part-time developer with JAMstack expertise. Finally, we will encourage engagement and feedback on the tool through an incentive program that will provide stipends to eight individuals (\$500 per person) and two organizations (\$2500 per org) to use CollectionBuilder for a project, exhibit, or collection and provide structured feedback to guide and refine development priorities.

Seeing as the U of I Library's website, digital collections, and digital scholarship projects are all built or maintained using CollectionBuilder and other static web tools, the 2% of time that this grant will fund each member of the project team will only be a small portion of the total time they devote to the project. By hiring another librarian, ideally someone early-career who will benefit from the technical and community-building skills this position will help them develop, the CollectionBuilder project will have a dedicated advocate and community organizer who will ensure continued attention to the tool, its documentation, and the community that uses it, allowing the original team to spend additional time developing CollectionBuilder-ES into a robust alternative to the dominant digital asset management platforms currently used in libraries and other organizations.

Tasks   Time frame: (August 1, 2022 - January 31, 2025)	Fall '22	Spring '23	Summer '23	Fall '23	Spring '24	Summer '24	Fall '24	Spring '25
Support and promote CollectionBuilder and community								
Recruit, hire and train new Digital Scholarship librarian	hire	training						
Digital Scholarship Librarian manages project support/comms								
Hire and work with JAMstack developer on CB-Elastic		hire	work-->					
Collect feedback and encourage use thru incentive program								

**Diversity Plan:** By lowering IT requirements, simplifying development, and minimizing costs, CollectionBuilder invites more people and organizations to get directly involved in controlling their digital infrastructure and building capacity internally thereby opening opportunities to small and medium size institutions and libraries with less funding to take part in innovative digital scholarship activities. More specifically, we plan on continuing our partnership with the [Recovering the US Hispanic Literary Heritage \("Recovery"\) Program](#) that will use CollectionBuilder to build bilingual means of access to the Recovery program's Latinx archives. We will also be working with the [Chicana por mi Raza Digital Memory Project and Archive](#) to begin using CollectionBuilder and other Lib-STATIC tools and approaches as infrastructure for their many collections and exhibits, particularly focusing on their transition away from end-of-life Drupal 7 into a more sustainable static infrastructure.

**National Impact:** CollectionBuilder has the potential to be as impactful as Omeka and Scalar for the creation of digital exhibits, projects, and collections, while improving upon the preservation, customization, and educational aspects of those tools. Currently, organizations and individuals across the United States and the world<sup>2</sup> use CollectionBuilder to publish digital collections and online exhibits. With more support and time to develop and promote the tool, we will further increase community usage and awareness. Moreover, the Lib-STATIC approach embodied in CollectionBuilder and similar minimal-computing tools (such as [Wax, Ed](#), and [Oral History as Data](#)) is transferable to other library tasks that require the speed, security, and data transformation possibilities that static web generators generally, and CollectionBuilder specifically, provide.

**Budget Summary:** We are requesting a budget of \$249,199. This will include: \$129,400 for two years of salary (50k/year) and fringe for a digital scholarship librarian faculty position at the U of I Library; \$14,118 (hourly + fringe) to hire a JamStack proficient developer; \$11,061 (salary + fringe) for team member time to develop/manage the project; \$1,500 for data storage and cloud services related to the project; \$15,500 for travel to present or teach; \$9,000 for the incentive program; and \$68,620 in indirect costs based on our 38% federally negotiated F&A rate for public outreach projects.

<sup>2</sup> Internationally, we've worked with librarians and users from Germany, Namibia, the Philippines, Canada, and Thailand