CHERYL L. JOHNSON
CLERK

KEVIN F. MCCUMBER
DEPUTY CLERK

LISA P. GRANT
DEPUTY CLERK

Office of the Clerk
U.S. House of Representatives
Washington, DC 20515–6601

April 17, 2023

The Honorable Bryan Steil
Chairman
Committee on House Administration
1309 Longworth House Office Building
Washington, DC 20515

The Honorable Joe Morelle
Ranking Member
Committee on House Administration
1216 Longworth House Office Building
Washington, DC 20515

Dear Chairman Steil and Ranking Member Morelle,

Pursuant to Section 501 of House Resolution 756 from the 116th Congress, I am submitting this quarterly report on adopting standardized formats for legislative documents.

As I reported previously, legislative branch staff are working on the next phase of the "More Documents in USLM" roadmap (included below), entitled "Remaining bill/resolution versions." The Government Publishing Office (GPO) leads this effort with representatives from GPO, the Office of the Clerk, the Secretary of the Senate, and the Library of Congress, along with the contractor who performs the modeling activities.

Since November 8, 2021, the project team has met regularly to create USLM data standards for the remaining bill and resolution versions. To date, the contractor has completed initial modeling for most major bill versions. On September 28, 2022, the first set of samples of the new USLM was made available to the public on GPO's USLM GitHub repository.[1] We have also made great progress in the modeling of amendments and plan to add a new set of samples to GPO's USLM

---

[1] https://github.com/usgpo/uslm/tree/proposed/bill-version-samples.

GitHub repository soon. We anticipate that the modeling of the remaining bill versions will be completed this year, along with a more robust set of resulting USLM sample files.

Roadmap for Publishing Legislative Documents in USLM XML Format[2]

Completed	U.S. Code
Completed	Enrolled bills, public laws, and the Statutes at Large
Completed	HOLC/SOLC statute compilations
IN PROGRESS	Remaining bill/resolution versions (introduced, reported, engrossed, all amendments, et. al.)
C	Committee Reports
D	House portions of the *Congressional Record*, including the *Daily Digest*
E	Hearing Records
F	House Calendar
G	*Precedents of the U.S. House of Representatives*
H	*House Journal*

One central goal of this stage of the roadmap is to ensure that the modeled USLM XML is conducive to interoperability within the legislative ecosystem and considers the editing and publishing needs of all legislative organizations.

Moreover, in alignment with the recent recommendation from the Select Committee on the Modernization of Congress that GPO create and offer a standardized process for automating Committee hearing records, the vision is to enable Committees to compile hearing documents and reports using Microsoft Word and to simultaneously publish hearings and reports in print-ready PDF, HTML5, and USLM XML formats. This step would allow Committees to customize the design of hearings and reports to take full advantage of color, graphics, and typographic design for both print and online editions.

As mentioned in previous reports, there is a cross-organizational set of systems that utilizes the USLM schema. Each project builds upon the tools and successes of previous projects. The Legislative Branch XML Working Group, in consultation with the Congressional Data Task Force, continues to analyze and recommend next steps that build on the work that has already been accomplished. As with any data standardization efforts, interoperability is a key goal, and project work must address any potential impacts on documents and systems used within the

---

[2] For more information about this roadmap, please see page four of the initial report at https://cha.house.gov/sites/evo-subsites/republicans-cha.house.gov/files/documents/Adopting%20Standardized%20Formats%20for%20Legislative%20Documents.pdf.

legislative branch. Recently, the XML Working Group discussed expanding the roadmap to include additional activities. We expect to complete a more extensive roadmap soon.

Below I have provided brief updates on some of the current projects using the USLM schema.

- **GPO's XPub Program**: GPO's XPub Program is replacing its aging and proprietary MicroComp composition system and associated applications—a major initiative in furthering GPO's transformation to an all-digital, all-XML workflow. GPO continues to develop a production release to bring bills, resolutions, amendments, and public laws into XPub production later this year and to work closely with House and Senate users and stakeholders (including the Office of the Clerk and Secretary of the Senate, as well as the Legislative Counsels and Committees in both chambers). Key to this production release is ensuring that XPub is fully and seamlessly integrated with the XML editors the House and Senate use to draft legislation, commonly called XMetaL and LEXA. Since the last report, GPO has delivered iterative releases for additional User Acceptance Testing, reflecting typographical improvements and performance enhancements. As part of the lead-up to the release, GPO provided a proposed responsive HTML format for bills and public laws for public comment. This format will replace the plain text file GPO currently provides. Optimized for any device (including mobile devices, tablets, desktops, and laptops), the format uses modern, easy-to-read fonts for screen usage and search engines. It also contains metadata for re-use by data providers. GPO highlighted this new format at the June, September, and December 2022 and March 2023 Congressional Data Task Force meetings and provided samples of these files for download via GPO's XPub GitHub repository.[3]

- **Office of Law Revision Counsel's Modernization Projects**: The Office of Law Revision Counsel (OLRC) is engaged in maintenance and enhancement work to improve the Hammurabi system for bill drafting, the ClassAct system for new law classification, and the Coda system for editing the U.S. Code. The OLRC is striving to eliminate performance issues and develop new features to ensure tools for editing and improving the U.S. Code use the latest version of USLM. Additional details about these projects and our collaborative work are available in Law Revision Counsel Ralph Seep's March 28, 2023, statement before the House Appropriations Subcommittee on the Legislative Branch. Additionally, the Working Group is working closely with OLRC as OLRC prepares to publish the U.S. Code in USLM 2.0.12 later this year.

- **Editing in XML**: As described in the initial report, the House and Senate use XML editors with a generation one schema to draft legislation. Legislative branch staff continue to discuss how legislative documents, such as statute compilations, the Statutes at Large, bills, resolutions, and amendments could be edited in USLM XML. As you know, on October 19, 2022, the Legislative Counsel and I submitted a report (attached) about collaborative legislative drafting. To move forward, my staff and I, along with the

---

[3] https://www.govinfo.gov/features/bdtf-meeting-march-2022.

Legislative Counsel met with Committee on House Administration staff (March 29, 2023) and House Committee on Appropriations staff (April 6 and 13, 2023) to review our proposal to use funds from the fiscal year 2023 Modernization Initiatives Account to work with vendor partners to develop a project vision and plan that includes user discovery, a possible market review, and a feasibility study of available tools and approaches for improving legislative drafting and the collaborative work required. Additionally, the proposal includes much needed maintenance work for the current drafting tool. Working with vendor partners will lessen the impact on existing Clerk projects and ensure that all deliverables conform to House standards and our long-term goals of tools that support rather than disrupt the legislative process.

Status of the USLM Schema

On March 20, 2023, the XML Working Group and relevant stakeholders met and agreed by consensus on the following work related to the USLM schema.

- In the second quarter of this year, the Draft label will be removed from all versions of the USLM schema in the Main branch in GPO's USLM GitHub repository.[4]

- USLM XML files created as a result of transforms from legacy file formats will continue to carry the Beta label.

After the Draft label is removed from all versions of the schema in the Main branch, the XML Working Group will manage the schema under the following guidelines.

- When changes are made to the schema, as a result of ongoing XML modeling activities or other proposals, new point releases will be made available on GovInfo and in the Proposed branch of the GitHub USGPO USLM repository.

- Upon approval from the XML Working Group, USLM schema files in the GitHub USGPO USLM repository Proposed branch will be moved into the Main branch.

- Updates to the User Guide and other supporting materials in the GitHub USGPO USLM repository will happen as needed.

- As in the past, every effort will be made not to create breaking changes. If a breaking change is deemed necessary, the first digit in the version number will be incremented, and appropriate documentation will be created to describe the differences.

- All adopted versions of the schema will continue to be made available on GovInfo and in the GitHub USGPO USLM repository.

- USLM XML files may validate against any of the adopted schema versions.

---

[4] https://github.com/usgpo/uslm.

Finally, unless otherwise directed, we will submit our next report about this work on or before October 15, 2023. If you or others on the Committee have questions about the contents of this report, please do not hesitate to contact me.

Sincerely,

Cheryl L. Johnson
Clerk of the House

Attached

Office of the Clerk and House Office of the Legislative Counsel Report for House Committee on Appropriations—October 19, 2022

cc: The Honorable Mark Amodei, Chairman, Legislative Branch Appropriations Subcommittee
The Honorable Adriano Espaillat, Ranking Member, Legislative Branch Appropriations Subcommittee

October 19, 2022

The Honorable Rosa DeLauro
Chairperson
Committee on Appropriations
H-307 The Capitol
Washington, DC 20515

The Honorable Kay Granger
Ranking Member
Committee on Appropriations
1036 Longworth House Office Building
Washington, DC 20515

Dear Chairperson DeLauro and Ranking Member Granger,

As requested in the fiscal year 2023 legislative branch appropriations report posted on the Committee Repository on June 21, 2022, we submit the following report on collaborative legislative drafting.

If you or others on the Committee have questions about this report, please do not hesitate to contact us.

Sincerely,

E. Wade Ballou Jr.
Legislative Counsel

Cheryl L. Johnson
Clerk of the House

cc: The Honorable Tim Ryan, Chairman, Legislative Branch Appropriations Subcommittee
        The Honorable Jaime Herrera Beutler, Ranking Member, Legislative Branch
        Appropriations Subcommittee
        The Honorable Catherine Szpindor, Chief Administrative Officer

As requested in the fiscal year 2023 legislative branch appropriations report posted on the Committee Repository on June 21, 2022, we submit the following report on collaborative legislative drafting. [1]

Increasingly, the House Offices of the Legislative Counsel (HOLC), the Clerk, and the Chief Administrative Officer (CAO) have received Member and Committee requests for improved legislative drafting tools. These requests are a natural outcome of Congress continuing to add digital layers to its centuries' old paper-based lawmaking process.

Legislative Drafting and Collaboration

As the Committee knows, attorneys in the House and Senate Offices of Legislative Counsel (SOLC) provide drafting services to their respective Chambers. Currently, HOLC employs 61 attorneys, also called legislative drafters.

Legislative drafting is the process of expressing a Member's policy in a proposal that, if enacted, carries out that policy. That process requires outcomes from Member policy ideation, policy and legal subject matter expertise, and legislative drafting expertise. Typically, Members, as well as Committee and personal office staff, provide policy ideations and subject matter expertise while HOLC and SOLC attorneys provide legal and legislative drafting expertise. The process to create a draft legislative proposal is iterative, with policy ideation, policy and legal subject matter expertise, and legislative drafting expertise informing each other. Policy ideation is condensed into a set of drafting instructions that are communicated to the legislative drafter, who then reviews the instructions and may ask questions to clarify policy intent and any legal issues encountered in expressing the policy ideation. The drafting process is complete when the Member says that it is. In short, collaboration allows the legislative drafter to turn policy ideation into a legislative proposal—a bill, resolution, or amendment.

Currently, HOLC provides legislative drafts in PDF format and collaborates with its clients through in-person meetings, phone calls, teleconferences, screen sharing, comments, additional PDF markups, redlined Word documents, and client-provided language in document attachments and emailed instructions.

As the House increasingly becomes more digital, it needs better collaborative drafting tools. Marking up PDFs and sharing edits in emails are time-consuming, and re-keying edits into the current XMetaL drafting application is difficult and labor intensive.

Current Toolsets

Since the early 1980s, staff in the HOLC, SOLC, Office of the Clerk, Secretary of the Senate, Government Publishing Office (GPO), and some Committees have used drafting tools designed for highly specialized job functions. Highly trained attorneys and specialized paralegals employ these drafting tools, including the House's XMetaL and the Senate's LEXA editors, which have been in use since 2001. The Office of the Clerk and the Secretary of the Senate maintain these editors with assistance from HOLC, SOLC, and GPO. The editors share a common XML data standard, which is addressed in detail in reports the Clerk of the House submitted to the Committee on House Administration and provided to your Committee on February 28, 2022. [2]

---

[1] https://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=114945.
[2] https://cha.house.gov/modernization-reports.

While both the House Clerk and Senate Secretary's Offices support HOLC, SOLC, some Committees, the Enrolling Clerks, and GPO in the use of these editors, neither Office provides these drafting tools to Member offices in either Chamber. The cost and effort continue to be too high, both in terms of support as well as in training entry and mid-level staff who have little or no experience drafting legislative text.

The importance of using trained legal experts to draft legislation was discussed in detail during the April 28, 2022, Select Committee on the Modernization of Congress hearing "Turning an Idea into Law: Modernizing the Legislative Process." Deputy Legislative Counsel Noah Wofsy explained,

> … It is a question really of what the House wants from a legislative document—if you can introduce a bill that says anything or does anything, the question is, will it work? Will it be technically sufficient? And legislative drafting is a craft, and we believe that the House is best served when people who are experienced in that craft are the ones who ultimately prepare the legislation. It isn't just a matter of the training that we receive, which is rigorous. When we have new people come in, they go through an extremely rigorous apprenticeship-type program where they learn the whole panoply of rules and procedures and techniques and how to ask all of these questions and how to work with our clients to make sure that we are giving them what they really want, *what they really want*, not necessarily what they write down on the page but what they are really trying to accomplish.

Risks and Opportunities

Our Offices continue to compile the risks, opportunities, and potential paths forward on this matter. We know that any new tools that the House would adopt to create, manage, and publish bills, resolutions, and amendments and improve collaboration must

- complement the existing workflow and ecosystem
- preserve document integrity at a high level, both in the policy intent and formal document structure to which the current XML format, legislative branch-wide document workflows, and drafting standards adhere
- maintain the quality of legislative language submitted to the Hopper and at other points in the legislative process
- preserve the quality of the legal impact of the legislative language, which can be analyzed by asking several questions:
    - How well do the enacted words carry out the intended policy?
    - Can the bill draft be interpreted correctly?
    - Can the legislative language be implemented?
    - Can the policy intent of the legislative language be applied correctly?
    - Are any ambiguities intentional?
    - Is the document internally consistent?
    - Do the amendments execute technically and fit into current law appropriately?

Next Steps

Collaboration with trained HOLC drafters is not a new thing. It begins with Member ideation, which includes consultation with subject matter experts, and expands to include HOLC when it receives a request for assistance. It ends when the Member says it ends—upon completion of the legislative draft.

Work to improve collaboration is being done now. First, the online form to request HOLC assistance is unavailable because of poor user experience. Members typically request drafting services through emails to HOLC's general inbox, which HOLC front office staff route to the appropriate team. Committee staff typically contact their HOLC team directly. HOLC staff and the CAO's House Digital Services have had initial conversations about creating a new online request form using the CAO's enterprise low-code/no-code platform.[3]

Second, to assist with initial phases of drafting—and to reduce the risks identified above when one does not use trained legal experts—HOLC partnered with the Congressional Staff Academy to create training courses to assist Members with the policy ideation phase. These courses have improved the quality of requests made to HOLC and helped Members' staff read and understand legislative drafts developed in response to these requests.

Third, by the end of 2022, an XMetaL enhancement will allow the application to attach a Word version of the draft provided to HOLC's client. Providing an editable Word version in addition to the PDF will allow Members, staff, and HOLC attorneys to use Microsoft track changes features to insert and review potential draft edits and modifications. We expect that this measure will remove some of the inefficiencies that are a part of PDF markup and emailed legislative text. Although it will not alleviate the challenge of inserting text from the Word document into the XML text that the XMetaL editor requires, we believe that this small step is important and the efficiencies gained will have value overall.

For the next steps, we propose that we begin to develop a project vision and plan that include user discovery, a possible market review, and a feasibility study of available tools and approaches for improving legislative drafting and the collaborative work required. Given our expected workload during the transition from the 117th to 118th Congresses, we cannot begin in earnest the work to put together a project plan and begin initial user discovery until the end of the first quarter of 2023, at the earliest. We anticipate that we will request funds from the fiscal year 2023 House Modernization Initiatives Account for this purpose, and we look forward to continued engagement on these matters.

---

[3] The CAO acquired a cloud-based, low-code platform for developing electronic administrative forms, such as those for personnel actions. The platform may also be suitable for routing legislative drafting requests.