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Designing the User-Centric eGovernment: The THOMAS Legislative Information System

THOMAS (<http://thomas.loc.gov>) was launched in January 1995, at the direction of the 104th U.S. Congress, to make federal legislative information freely available to the public. For over 10 years THOMAS has served many constituents: legislators, researchers, educators, students, policy advocates, and public citizens. The THOMAS application has allowed users to search many facets of legislative data and related information. In 2005 the Library launched a comprehensive redesign of the look-and-feel of THOMAS to standardize the design and site architecture and to address the needs of users based on user and customer feedback.

In November of 2006, the Library launched a public BETA (<http://thomas.loc.gov/beta/>) version of THOMAS with a number of significant functional enhancements. This release was the first attempt to re-architect the user experience as well as the underlying technical infrastructure of the legislative information system. The guiding principle for these changes to THOMAS is to foster a more user-centric approach to the retrieval and display of legislative data. Furthermore, it is our desire to make accessible to the broad public citizenry (including educators and K-12 students) the breadth and depth of legislative activity that affect our daily lives. We will discuss some of these new features and survey the future direction for THOMAS and legislative searching from the Library of Congress.

Federated Searching

One of the key improvements over the existing THOMAS site is the ability to search all Congressional databases (bill text, Congressional Record, Committee Reports, Treaties, and Nominations) from a single search box. For example, prior to the release of the BETA site, if a user needed to search both bill data and access committee reports, they would be required to navigate to 2 separate search pages. Often, users are searching for information across data sources and require easy and direct access to them all via one merged set of search results. Users can now search via one box, and elect to narrow their search toward a specific content area, or sort by relevancy or date. Another significant enhancement as a result of the federated search is the ability to search *all* Congressional data across all Congresses in the database, not only the current or most recent Congresses (as is the case with the existing THOMAS and other legislative search systems).

Legislative Browsing

We have also implemented faceted navigation for legislative data. From the THOMAS home page, users can navigate through a browse list down to a specific bill

related to that topic or category. In addition, users can execute targeted keyword or phrased searches within a category. This has been implemented using the content classifier technology bundled with the Autonomy K2 search engine. The underlying data source is derived from the legislative terms assigned to each bill by the Congressional Research Service's bill digest team, using the Legislative Information Vocabulary.

Guided Searching

One of goals for the new THOMAS is to develop an interface geared toward both novice and advanced users. Many novice users do not know where to start. To address this concern, we have implemented a simple, guided search feature that allows users to self select a path based on interests or a specific information retrieval need. The user will be asked a series of questions based on their previous selections and will be directed towards a series of results that reflect their choices. From the resulting page, a user can re-select options to dynamically re-generate the result set, enabling a quick and intuitive mechanism for advanced searching. For the BETA product the guided navigation feature has been implemented for Presidential Nominations data.

Enhanced site navigation and presentation

The Library has been rolling out a number of interface revisions across our web properties based on best practices of usability and graphic design, and we have employed these enhancements on the new THOMAS as well. These include the use of persistent navigation, fluid design, and flexible layouts for multiple browser types and screen resolutions.

Looking Forward

As we continue to gather feedback from our visitors regarding the new features, we are working toward the implementation of the next production release of THOMAS. In addition to rolling out production versions of the features described above, we plan to implement several new features aimed at facilitating an interactive and intuitive user experience for all users, including a number of Web 2.0 capabilities. These include the rollout of RSS feeds for daily legislative activities, the implementation of email alerts and saved search capabilities, collaborative filtering, more guided and faceted navigation features, and advanced search options. Through these new and enhanced features, we aim to serve Congress and the American public with a broad array of easy to use and accessible tools to continue our mission of access to all facets of the legislative record.

The session, if the paper is accepted, will discuss the strategies, tools, and technologies utilized in planning, developing, and deploying eServices to the public. We will discuss the challenges inherent in migrating legacy data structures into XML, working with commercially available taxonomy and retrieval software, developing user-driven interfaces for multiple audiences, and employing emerging technologies into eGovernment services.