START: A Framework for Facilitating E-Rulemaking

Boris Katz Roger Hurwitz Jimmy J. Lin Ozlem Uzuner
MIT Artificial Intelligence Laboratory
Cambridge, MA 02139
{boris,rhhu,jimmylin,ozlem}@ai.mit.edu

Federal agencies implement laws passed by Congress by making rules and regulations that can be applied in practice. Stakeholders and members of the public usually want to know how proposed rules will affect them, so they can effectively respond to the proposals, during the comment period. While the stakeholders, like business and advocacy groups, can employ information specialists to get their answers, individuals will have to turn to the rulemaking agencies for such information. Consequently, for online rulemaking to encourage and support public participation, there will be need for information access that is simple and intuitive to use, comprehensive in the material covered, specific to the user's needs and timely.

To meet these demands, we propose an information access architecture that allows ordinary citizens to get the information they want by using ordinary language. This architecture is based on the natural language question answering technology we have pioneered in START, a system that we have developed over the past decade and applied to a variety of domains. START was the first question answering system available on the World Wide Wide. Since it came on-line in December, 1993, START has interacted with hundreds of thousands of users all over the world, supplying them with useful, knowledgeable answers to their questions about places (e.g., cities, countries, lakes, coordinates, weather, maps, demographics, political and economic systems), movies (e.g., titles, actors, directors), people (e.g., birth dates, biographies), dictionary definitions, etc. (See Figure 1). Because START performs sophisticated syntactic and semantic processing of questions to pinpoint the exact information need of a user, the answers are remarkably precise.





Figure 1: Sample responses from START.

In our companion paper entitled "Better Public Policy through Natural Language Information Access," we describe how a framework built around a language system like START would facilitate online rulemaking. As we note there, in addition to providing intuitive information access to rules and laws, natural language can also be used to notify interested parties about new information, to support public comment and to facilitate agency staffs in reviewing and aggregating the comments.