Project Title: Assessing the quality of automatic classification of National Library of Medicine (NLM) customers’ requests and corresponding automatically generated responses to customers’ requests.

Brief Description:
NLM receives up to 100,000 customers’ requests per year. A significant portion of the requests are for changes to MEDLINE/PubMed citations. The requests for changes are initially answered with stock replies. The selection of an appropriate stock reply is based on the PubMed status of the citation. We have implemented a prototype system that classifies the incoming requests by the type of the request—Customer Request Classifier (CRC). If the CRC labels a request as a request for change, it retrieves the citations listed in the request, checks their status and prepares an appropriate stock reply. Before deploying the system into production, we need to test the quality of the automatic classification of requests and corresponding automatically generated answers. The primary task is to assess the quality of the classification and answers. Since the prototype is in the early implementation stages, an additional task might involve helping the technical team assess the flow of information in the system.

Primary Learning Objectives for Intern:
Understand NLM customer needs.
Develop understanding of the scope and flow of the customer relationship management system.
Develop and use skills in question and answer analysis.
Develop and use skills in evaluation of automated systems.

Expected Outputs/Products:
Study design to assess the quality of automatically generated answers.
A set of judgments on quality and correctness of the automatically generated answers.
Analysis of the evaluation results.
Preparation of a manuscript for publication: if desired

Methodologies/Tasks:
Intern will develop the methodologies in conjunction with the project sponsors
Literature Review
Data analysis

Project Sponsors:
NLM staff: Terry Ahmed, Wei Ma, Dina Demner-Fushman