EXPLORING CATEGORIES (Espresso Overflow)

After analyzing the data, our group has determined that the current matching system is highly inefficient. Our research shows that only 25% of the questions posted are taken by attorneys, and of those questions with a legal deadline, only 53% are closed before the deadline. Additional statistics that demonstrate the inefficiency of the process include an average wait time of 10 days and 21 hours for clients to be matched with an attorney, and an average of 8 days and 21 hours for cases to be closed after an attorney takes them.

Our research also uncovered that volunteer attorneys can sign up to receive notifications when questions are posted in their areas of interest, as well as the category and whether the person seeking help is a senior or a veteran. However, this requires novice clients to select the correct category, which can be challenging, and the subcategories are repetitive and uninformative to attorneys since the questions are context-specific and require some back-and-forth to be answered. Notably, the most popular question category answered by attorneys was "Other," which also represented the second most selected category by clients.

We believe that improving the matching process will not only make it less challenging for lawyers to determine what work they need to do, but it will also require clients to know the specifics of their questions and self-select them correctly, allowing volunteer attorneys to spend less time helping each individual and potentially answer more questions.

To improve the matching system, we propose clustering questions based on keywords using k-means clustering to increase efficiency. In the image below, we illustrate two clusters based on keywords, where observations initially categorized into the "Other" category are no different from other observations that had a self-selected category. Our findings suggest that the American Bar Association (ABA) should re-evaluate their categorization system to match attorneys to clients more effectively. For example, they could increase the number of system administrators overseeing and re-classifying questions or investigate the most frequently misclassified questions. Our team recommends providing clients with real-time category suggestions as they describe their questions. This could serve as a gateway to a triage system where clients' cases are categorized by urgency and given priority during the assignment.