**Background**

Reddit is a platform where users can post information freely about a topic for other users to utilize as a resource. With over 33 million users, 5 million articles and 45 million pages but only 1 thousand admins, it is essentially an unregulated mecca of free information and big data. They also allow comments for users to correct posts in case the information presented has errors. This feature was included to foster an open source community of information. Unfortunately there is no way to censor the types of comments or even the content added, so it invites users who post comments with the intent of disrupting positive and intellectual debate.

**Objective**

Reddit should have a bot that bans people who post toxic comments and automatically deletes/censors toxic comments. This will make people use the platform more because toxic comments don’t serve a purpose except to breed negativity which will turn users to other websites which loses Wikipedia their customer base and potential profit from donations etc.

**(Data) Wrangling**

The data will be pulled from Reddit using their API. For our dataset we used any kind of comment pertaining to the hot button issue of gun control. The training dataset consists of about 7 thousand distinct comments and the testing dataset will consist of 2 thousand comments.

**Exploratory Data Analysis**

**Machine Learning Methods - Naïve Bayes**

The first method we will be using is the Naïve Bayes Support Vector Machine to create a strong baseline to identify toxic comments. For simplicity’s sake we will be using sklearn’s logistic regression rather than support vector machine but they are in practice identical and perfect substitutes. We will first be creating a bag of words matrices to