Using Python to Develop Twitter Personas

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This project intends to determine how much of a social media user's interests can be predicted by Twitter's algorithms. The idea for the project stemmed from an article detailing possible Russian involvement in American politically-focused social media. Twelve emails, phone numbers, and Twitter accounts were created for this project. Per account, a Python program was created in order to automate it; each 'bot' was assigned a name, political leaning, age, location in North America, specific topic interests, and Twitter hashtags to follow by researchers. The bot accounts were programmed retweet from Twitter hashtags that were relevant to their assigned interests. A human-run Twitter account was utilized as a control group. At the end of a five-day testing period, the average accuracy of Twitter's suggested interests when compared to each bot's assigned specific interests was 32%, which did not support the hypothesis (60% accuracy). However, the average accuracy of Twitter's suggested interests when compared to the larger overarching topics containing each bot's assigned interests was 85%; 25% higher than the hypothesis suggested. The project determined that Twitter algorithms can predict general interests, but struggle to predict the more specific subtopics. This conclusion is important for public awareness, as a potential employer or higher education center could potentially view personal information of an applicant to influence their decision to accept or deny the applicant.

Awards Won:
American Psychological Association: Third Award of $500