Social Media Analysis for SMART Tool Development

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We are asking you to take part in a research study sponsored by Columbia University's School of Social Work, School of Engineering and Applied Science and Data Science Institute and the Research and Evaluation Center (REC) at John Jay College of Criminal Justice. The purpose of this consent form is to give you the information you will need to help you decide whether or not to participant in the study. Please read the form carefully. We encourage you to ask questions about the purpose of the research, requirements for involvement in the study, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When all your questions have been answered, you can decide if you want to be in the study or not. This process is called 'informed consent.'

PURPOSE

The purpose of this project is to develop a SMART tool which assesses patterns and changes in social media sentiment among residents of New York City neighborhoods. This project proposes to incorporate the critical focus on community perceptions and sentiments towards COVID-19, Anti-Black racism, public safety and quality of life concerns. This includes the identification of social media (e.g. Twitter, Instagram) expressions related to community wellbeing, cohesion, and sense of safety and institutional trust. By analyzing the social media sentiment of New York City resident's and collaborating with community experts, this SMART tool can assist government agencies in providing resources towards community-identified priorities and needs in a more efficient way.

Benefits

There are three main benefits to society that we anticipate achieving in this research:
Define priority areas and evaluation criteria in addressing COVID-19 and public safety issues.
Develop a computational tool that will automatically identify issues related to quality of life, public trust and public safety in New York City
The analysis could be used for the allocation of short- and long-term resources and support as well as community groups to target their efforts and responses to events and conditions that may represent vulnerabilities in public safety.

PROCEDURES

Information technology has been marshalled before to tackle issues of public safety concern. Recently, the justice system has turned to using social media, monitoring for the potential of violent outbreaks and as evidence in criminal prosecutions. We propose the use of technology to achieve safety and improved quality of life by a different, less punitive, path. Overall, the project seeks to galvanize residents, community stakeholders and several city agencies in order to tackle underlying factors correlated with public safety and institutional trust.

Stage 1: We will collect social media posts (e.g., Twitter, Facebook and Instagram) within the first 3 months of the proposed study. We will use a hybrid model for collecting data that includes (i) a computational strategy: the computational strategy will be used to automatically collect posts from public accounts on Facebook, Instagram, and Twitter. In order to protect user identity, the computer science team will create a password-protected app that can only be used on JohnJayREC computers. Additionally, we are(ii) seeking participant consent for observing social media posts.

We will recruit adult residents virtually (e.g phone, video chat, online chats) and through community-based referrals to annotate social media data. These community experts will leverage their neighborhoods, cultural, and linguistic expertise in local and social media contexts to translate and interpret social media data.

Stage 2: We will use Natural Language Processing and Computer Vision Detection techniques to automatically detect concepts related to priority issues and generalize from observed behavior on social media.

Stage 3: We will collaborate with JohnJayREC and MOCJ to develop and deploy an approach to detect issues related to public safety in identified areas that are informed by community advisors on key priorities and needs.

*Community experts may refuse to answer any question or item in any interview

RISKS, STRESS, OR DISCOMFORT

This research may include discomfort and an emotional burden due discussing topics such as, quality of life concerns, community wellbeing, cohesion, public safety and COVID-19 being discussed in interviews.

OTHER INFORMATION

The data will remain confidential. We will de-identify all social media posts, use images from different domains, and seek community input to ensure our project has the highest ethical standards. The data will be used to support the development of machine learning techniques to assist in the detection public safety, quality of life and COVID-19 concerns. All files and storage devices containing study data will be retained for at least five years. Once it is decided that the

study data are no longer needed, the electronic data will be permanently erased. Community participants may refuse to participate or may withdraw from the study at any time without penalty or loss of benefits to which they are otherwise entitled. All names and identifying information will be maintained in an encrypted file that is only accessible by JohnJayREC staff. All usernames in the downloaded posts will be automatically removed and thus the computer science team will only see the text, images, video and emojis from the selected users.

As an incentive to your participation, we will provide a monetary incentive of $50. You may be asked to consent to giving us access to your public Twitter, Facebook, and Instagram posts. We seek a cohort of up to seventy-five adult (18 years or older) residents, whom we will contact in various ways to include phone calls and direct messages through the research teams' Facebook, Instagram, and Twitter accounts. Per Twitter policy, we will be able to analyze your last 3200 posts and, through Facebook and Instagram, examine public posts over the past 12 months.

PARTICIPATION

Participation in research is entirely voluntary. You may refuse to participate or withdraw from participation at any time without jeopardizing your employment, student status or any other entitlements. The investigator may withdraw you at his/her professional discretion.

PRIVATE INFORMATION
Any information derived from this research project that personally identifies you will not be voluntarily released or disclosed without your separate consent, except as specifically required by law.

CONTACT INFORMATION
If at any time you have questions regarding the research or your participation, you should contact the Principal investigator, Dr. Desmond Upton Patton, who will answer all questions. His telephone number is (704) 718-5551 and email dp2787@columia.edu. You should also contact the investigator or a member of the research staff if you have any concerns or complaints about the research.

If at any time you have comments regarding the conduct of this research or questions about your rights as a research participant, you should contact the Institutional Review Board (IRB) Administrator at (212) 851-7040.

PARTICIPANT'S STATEMENT
I have read the above purpose of the study and understand my role in participating in the research. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later, about the research, I can ask the investigator listed above. I understand that I may refuse to participate or withdraw from participation at any time without jeopardizing my employment, student status or other rights to which I am entitled. The investigator may withdraw me at his/her professional discretion. If I have questions about my rights as a research participant, I can call the Institutional Review Board office at (212) 851-7040. I certify that I am 18 years of age or older and freely give my consent to participate in this study. I will receive a copy of this document for my records.

Community experts' signature/consent_____ Date_____

Name_____

INVESTIGATOR'S STATEMENT
I have discussed the proposed research with this participant, and in my opinion, the participant understands the benefits, risks and alternatives (including non-participation) and is capable of freely consenting to participate in the research.

Signature _____ Date: _____