**Improving Resonance of Twitter Content in Counter ISIS**

**Information Operations**

**Problem:** Messaging efforts often fail to achieve widespread dissemination, as tactics are rarely supported by data. By collecting and analytics social media data, one can determine the consumption and behavioral habits of online audiences and use said information to craft and deploy messaging that will likely reach and resonate with larger portions of target audiences.

**Hypothesis:** Twitter users within certain regions are generally active around particular windows of time. By analyzing the activity of when initial Tweets issued and interacted with (namely replies and retweets), one can determine these windows.

**Data, Set up, and challenges:** I elected to use a random sample of Tweets pulled from a social media monitoring tool called Sysomos. I had to construct a Boolean search query that included specific hashtags related to #WeWillBurnUSAgain, a propaganda campaign launch by the Islamic State’s media arm. I had to spend as great deal of time ruling out as many anti-ISIS Tweets as possible. This included excluding phrases, hashtags, and specific users, and re-running the search string after making each modification. Once I had reached a point where the search appeared to be mainly producing pro-ISIS (I say mainly, because when you’re dealing with 30,000 Tweets, it is incredibly difficult to rule them all out).

Arabic characters also proved to be a challenge at times. In an earlier version of my code, I had tried to search for Arabic translations for Islamic State, but I kept receiving errors regarding the encoding. I had tried to add a two lines that would hopefully allow for the collecting of Arabic tweets, but the code kept breaking. I will need to look into this issue further.

**Analysis:** When analyzing the data, I learned that the pro-ISIS crowd was most active between 10 am and 2 pm EST. When you adjust to the Arabia Time Zone, it brings the time range between 6pm and 10pm, generally the time following work and before dinner in the Middle East. Though this by no means indicates that these Tweets definitely come from the region, I simply mean to point out that, this time range makes sense, as social media users from the region are often active during this time range.

**Possible extensions:** There is plenty of additional work to do. I am considering preparing a decision tree script in order to better determine other factors (particular keywords and hashtags that show up the most often within the most popular Tweets) and that could be exploited to allow information operations (IO) officers to better enter and subvert pro-ISIS communities. I also intend to begin mapping and profiling social network communities. By examining the various communities, an analyst can identify prominent narratives that might be worth supporting or opposing, specific hashtags within individual communities that might be worth hijacking or supporting, or perhaps influential anti-ISIS users that are worth supporting (or would, except for the fact that we are required to anonymize Twitter handles).

I am also considering consulting with a linguist to assist with possibly using dialects as a way to determine a user’s location (or at least the user’s origin). The reason for this is, while user-supplied can be purposely altered to deceive others (such as lying about one’s location) or simply denied (such as with those who disable geo-tagging), it is highly unlikely that one would think to alter their vernacular while tweeting (Twitter does not exactly loan itself to such forethought when it comes to messaging).

**Conclusion:** I will expand the next data set to incorporate 6-12 months’ worth of Tweets, in order to better determine if this is a standard behavior of pro-ISIS users. The results of this project will allow me to begin crafting a set of guidelines that will allow IO officers to craft Tweets that will likely have a greater level of resonance with target audiences, by exploiting their consumption and usage habits, as well as better understanding what is important to the aforementioned audiences.