The Use of Twitter during the 2014 Crisis in Ukraine: A Tale of Three Languages

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As more and more individuals and organizations are turning to social media to debate politics, share news and organize protests, their online interactions and content offer researchers in social sciences a unique opportunity to study political events as they unfold in real time. This research reviews how Twitter was used during the 2014 EuroMaidan protests in Ukraine. Since Twitter was one of the most popular social media platforms used during the protests (Lokot, 2014), we ask what role it played and who were the key influencers on Twitter who posted about EuroMaidan.

For this study, we collected three concurrent samples of public Twitter messages (tweets) that mentioned the word 'Ukraine' in three different languages: (1) Ukrainian, (2) Russian, and (3) English. The three datasets were collected by querying the Twitter Public Search API hourly to retrieve up to 1000 most recent tweets per request during a period from February 18 2014, when the protests on Maidan Square in Kyiv—the capital of Ukraine—turned deadly, to March 14 2014, the date leading up to the referendum held in Crimea on whether the autonomous republic should join Russia. To collect and analyze public tweets, we used Netlytic, a web-based text and social networks analyzer that can automatically summarize and discover social networks from online conversations on social media sites such as Twitter. In total, we collected (1) 200,956 tweets mentioned "Україна" (in Ukrainian) posted by 46,641 unique Twitter users, (2) 527,112 tweets mentioned "Украина" (in Russian) posted by 141,541 unique users, and (3) 591,394 tweets mentioned "Ukraine" posted by 246,113 unique users (see Table 1). Even though we used a very broad search term (the country's name); because of the prominence of the events in Ukraine during this time period, the overwhelming majority of collected tweets were about the Maidan protests and related topics.

Table 1: Study Datasets

	Україна	Украина	Ukraine
Presumed Language	Ukrainian	Russian	English
# Tweets	200,956	527,112	591,394
# Unique Users	46,641	141,541	246,113

Once the tweets were retrieved, we used Netlytic to build, visualize and analyze "Who Talks to Whom" communication networks, capturing connections based on mentions, replies and retweets (see Figures 1-3). Based on the network analysis of the three communication networks on Twitter and the review of the most mentioned Twitter accounts, we found that in all three cases, each network was organized around highly connected nodes that represented accounts of news agencies and reporters, followed by activists (including bloggers) and politicians. The results suggest that Twitter was used primarily for information dissemination purposes and not to organize collective action unlike during some other popular uprisings and protests in recent times, such as the Egyptian revolution (Eltantawy & Wiest, 2011) and the Occupy Movement (Croeser & Highfield, 2014).

Our future research will examine the content of tweets to get more details about the types of information disseminated and connections formed on Twitter during the crisis in Ukraine.

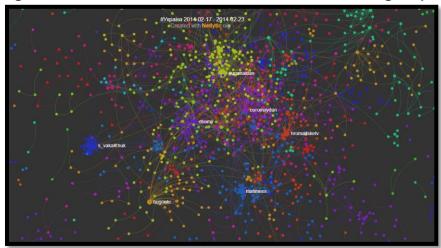**Figure 1: Communication Network of Tweets Mentioning "Україна" (in Ukrainian)**

Figure 2: Communication Network of Tweets Mentioning "Украина" (in Russian)
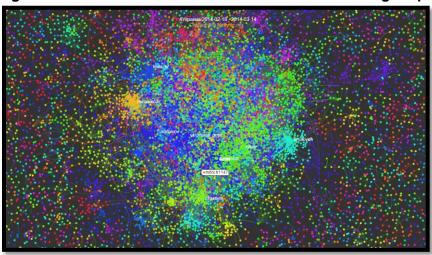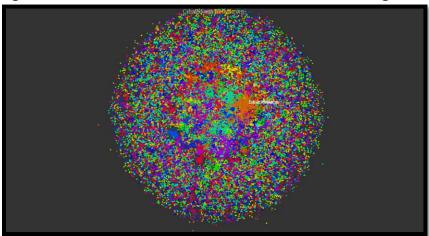

Figure 3: Communication Network of Tweets Mentioning "Ukraïne" (in English)

References

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Lokot, T. (2014). Russian Social Networks Dominate in Ukraine Despite Information War. Retrieved from http://globalvoicesonline.org/2014/09/01/ukraine-russia-social-networks-information-war/