

Information Diffusion on Twitter: The Case of the 2013 Iranian Presidential Election

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INTRODUCTION

In this study we analyzed information propagation on Twitter during the 2013 Iranian presidential election.

We reviewed the user population participating in the discussion of Iran during the 2013 election. We examined correlations between the number of tweets per day and dates of major events before, during, and after the election. Then, we identified the most retweeted users during the election period to understand the flow of information and direction of information propagation.

DATA SET

- Data set has been collected from May 14, 2013 to June 29, 2013 using Twitter search API
- we collected tweets using 47 keyword and hashtags. Including general keyword such as Iran, names of candidates in Persian and English (with multiple possible spellings in English).
- The final data set consisted of 3,006,528 tweets.

DISTRIBUTION OF TWEETS

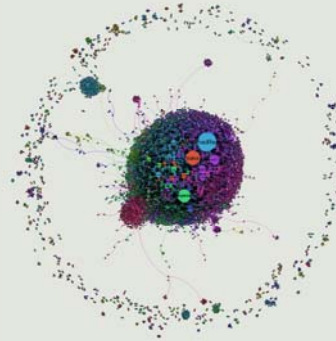
- **Peak of Tweets:**
- May 31, June 5, June 7: presidential debates
- June 15: the day after the election, when Rouhani was officially announced as Iran's new president by Iran's Ministry of Interior.
- June 14: Election Day and the date some preliminary results were announced.
- June 16: the day after Rouhani's victory was official announced.

ANALYZING RETWEET NETWORK

We classified the 100 most retweeted users in four main categories:

- Official news/media outlets: Official news agencies such as @cnnbrk (breaking news from CNN).
- Journalists: Individuals who work as a journalist for an official news agency or media or as a freelance journalist Such as @Gesfandiari (Radio Free Europe).
- Politicians: official twitter accounts of politicians.
- Social media (Twitter) celebrities: Popular users who tweet from inside or outside Iran and famous Iranian bloggers.

RETWEET NETWORK OF PERSIAN TWEETS



RETWEET NETWORK OF PERSIAN AND ENGLISH TWEETS



DISTRIBUTION OF TWEETS



RETWEET NETWORK OF PERSIAN TWEETS

- Mohammad Reza Aref (@MohamadRezaAref) one of the eight candidates, was the most retweeted source (1,447 retweets).
- Iranian Twitter celebrities had the highest presence among the top 100 most retweeted users in Persian.
- The second most retweeted group was journalists. There were eight official news/media outlets among the 100 most retweeted accounts. These news media sources are:
 - BBC news in Persian (@bbcpersian), ranked 3rd,
 - Kaleme, non-official news source of Green Movement in Iran (@kaleme), ranked 23rd,
 - Deutsche Welle radio in Persian (@dw_persian), ranked 33rd,
 - Manoto Persian TV from London (@ManotoNews), ranked 48th,
 - Official Persian channel of US Secretary of State (@USAdarFarsi), ranked 79th,
 - Mardomak, non-official news source of opposition in Iran (@mardomak), ranked 80th,
 - Radio Farda, Radio Free Europe in Persian (@RadioFarda_), ranked 90th,
 - IPOS: Information and Public Opinion Solutions, a survey and research consultancy (@IPOSme), ranked 98th.

RETWEET NETWORK OF PERSIAN AND ENGLISH TWEETS

- The most retweeted users were from two categories, journalists and news/media outlets.
- Of the top 100 retweeted users, there were 27 news/media accounts:
 - Reuters international news agency (@Reuters), ranked fifth
 - Al-Arabiya TV in English (@AlArabiya_Eng) and, ranked sixth
 - BBC World News (@BBCWorld), ranked seventh
- Two users on this list, BBC news in Persian (@bbcpersian), based in London and Mehr News Agency, (@MehrnewsCom), in Tehran, tweet in Persian.

CONCLUSIONS

Our findings demonstrate a structural difference between Persian and English Twitter-spheres in discussion of Iran. Discussion about Iran in Persian on Twitter is mostly dominated by micro-celebrities whereas the English Twitter is dominated by official media, news agencies and journalists.