



The Internet is currently the political town square where debate over issues, support for candidates, and real-time news updates take place. This year, thousands of people have created dedicated websites to voice their support – or lack of support – for Hillary Clinton and Donald Trump for the 2016 U.S. election.

Domain Name System (DNS) underlies everything we do on the Internet – even campaigning for our favorite Presidential candidates. For this report, CybelAngel and Farsight Security examined trends how users are purchasing and registering domain names to create websites dedicated to voice their opinion about the two candidates. The primary research took place between February 2013 and May 2016 and only examined English-language websites.

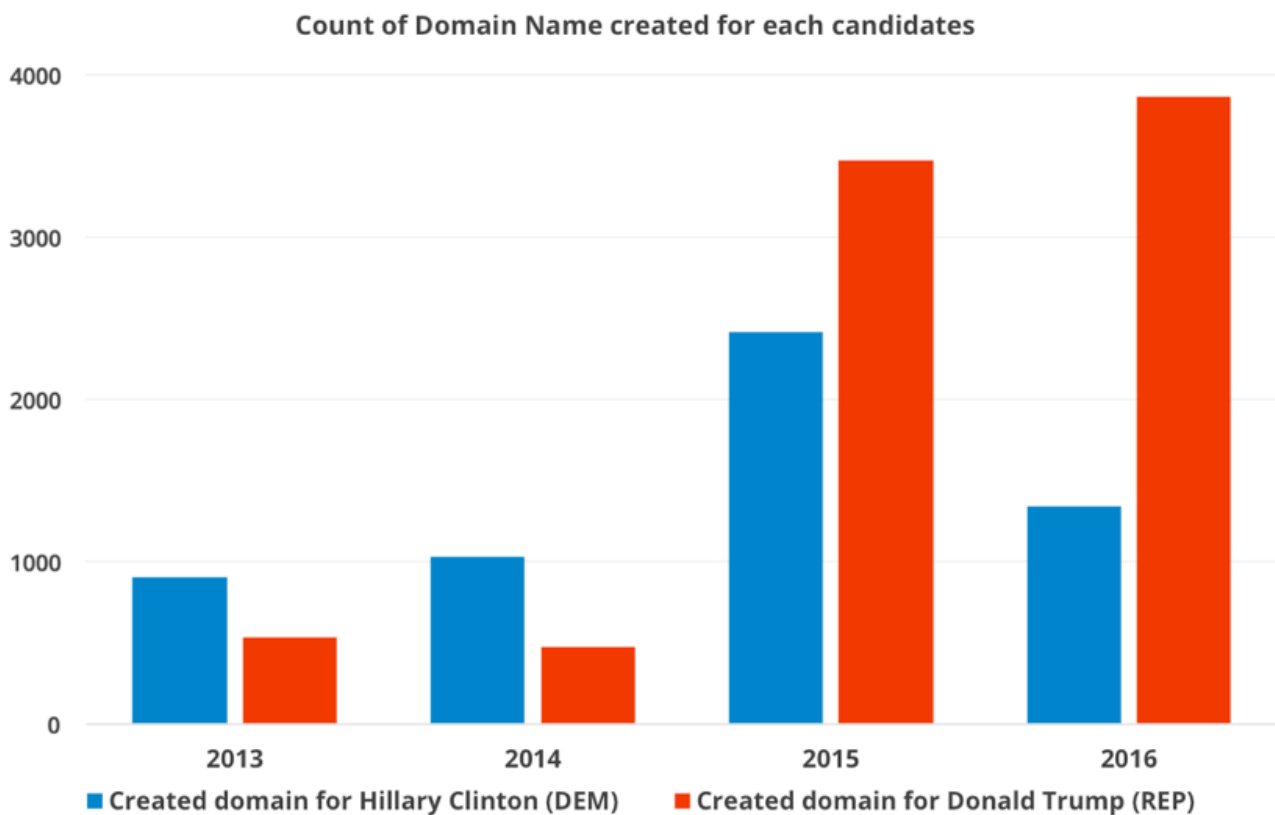


Figure 2. Registered candidates' domain names between 2010 and 2016.

## Methodology

The first step consisted of gathering information about the websites dealing with the two main candidates in the 2016 presidential campaign: Hillary Clinton and Donald Trump.

The first version of our algorithm enabled us to identify over 25,000 websites that included some false-positives. Thanks to further development of this first algorithm, we were able to set apart a little more than 20,000 websites effectively dealing with Clinton and Trump.

In Figure 2, we show that the Internet is increasingly used as a vector to express one's political opinion. In addition, the surge in political mobilization over the two previous years is also easily observable in the data.

## Clinton vs. Trump

The goal was to map online political involvement in this highly animated campaign. Thanks to clustering algorithms, we clearly identified four clusters of websites:

- Clinton-loving/hating websites
- Trump-loving/hating websites

The following results were found:

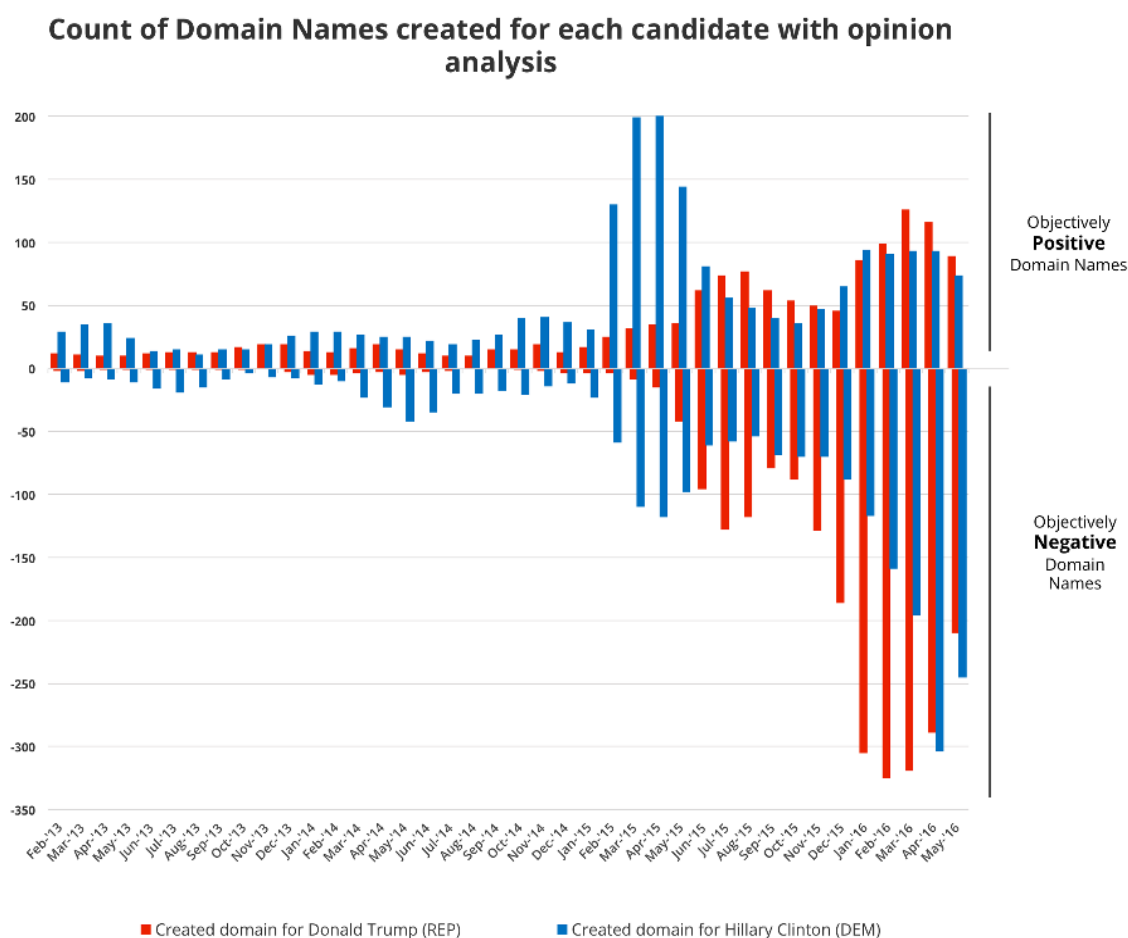


Figure 3. Number objectively positive and negative registered candidates' domain names between February 2013 and May 2016.

Based on Figure 3, the following conclusions can be drawn:

- Hillary Clinton's online presence from 2004 to 2011 appears uniform when comparing pro-Clinton to anti-Clinton websites.
- A peak of mobilization is observed from 2015 to 2016 when the campaign actually started. A little over 3,700 websites, either pro- or anti-Clinton, were created from the beginning of 2015.
- Over the last two years, the growth of anti-Clinton websites was more prevalent than pro-Clinton sites. This means that Clinton's adversaries were more eager to express their opposition than her supporters were to spread her campaign ideas.

When focusing on DNS requests corresponding with Trump-related websites, a few key elements can be highlighted:

- Prior to 2015, a number of pro-Trump websites were registered but hate-related domain names were quite rare. At that time Donald Trump was only seen as a successful businessman and the host of the popular TV show *The Apprentice*.
- In June 2015 as Donald Trump officially entered the race for the White House, a surge in websites is observed with both supporting and opposing positions. Overall, more than 7,300 websites were created since the beginning of 2015.
- When anti-Clinton websites are compared to anti-Trump sites, it appears that Donald Trump is a significantly more polarizing candidate than Hillary Clinton. Between 2015 and 2016, Internet-users created 76% more anti-Trump websites than anti-Clinton ones.

## Pro or Con: The Power of Words in a Campaign

We applied automated semantic analytics to the massive amounts of Trump- and Clinton-related websites. This analysis consisted of two major steps:

- Using rich dictionaries, we applied an algorithm to automatically detected positive, negative and neutral wording in domain names;
- A scoring algorithm was later used to rank the domain names from most positive to most negative for each candidate.

Here are the results of the text-mining techniques we applied onto both pro- and anti-Clinton and Trump websites in order to see what kind of vocabulary was mostly used for both candidates:



Figure 4. Lexical study of pro-Clinton websites



Figure 5. Lexical study of anti-Clinton websites

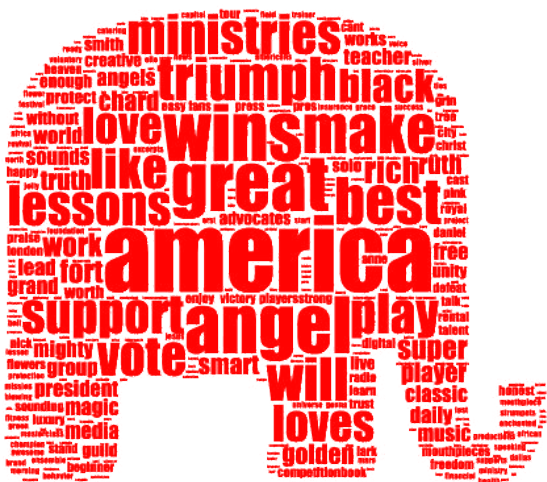


Figure 6. Lexical analysis of pro-Trump websites



Figure 7. Lexical analysis of anti-Trump websites

## Conclusion

The Internet can now definitely be defined as the town square for passionate political debates as the 2016 US presidential campaign demonstrates. In addition to simply giving their opinions through social media, citizens even go significantly further and buy their own domains that they dedicate to their claims for or against candidates.

These online vectors enable them to express their ideas in a very straightforward and sometimes absolutely uncensored way. There is an extreme level of polarization observed in the Clinton vs. Trump debate which is perfectly echoed in the online sphere.

## About the collaboration

CybelAngel and Farsight Security have been collaborating for over a year to provide valuable insights to brand protection teams. Using Farsight Security's real-time Passive DNS channels and CybelAngel's proprietary algorithms, we are able to detect domain names used by counterfeiters as soon as they become active online.

Gathering hundreds of data points and features, our clustering algorithms build links between thousands of websites that belong to the same malicious organization. With this proprietary technology, we help our customers prioritize the actions they must take in order to protect their assets. If you are interested in this product, please contact us.

---

### CybelAngel

CybelAngel provides a threat intelligence service designed to detect data leaks on parts of the Internet unknown to most users to protect leading actors from the public and private sectors. Its Dark, Deep Web and connected devices search engine enables CybelAngel to monitor at a very high frequency all new and evolving open endpoints where the company information can be leaked (suppliers, Cloud storage, employees, etc.). CybelAngel alerts its clients on leaked sensitive documents, credentials, credit card numbers as soon as they are exposed.



[www.cybelangel.com](http://www.cybelangel.com)

### Farsight Security

Farsight Security, Inc. provides the world's largest real-time threat intelligence on changes to the Internet. Leveraging proprietary technology with over 200,000 observations/second, Farsight provides the Internet's view of an organization and how it is changing purposely, inadvertently or maliciously.



[www.farsightsecurity.com](http://www.farsightsecurity.com)