IEF

EINAUDI INSTITUTE FOR ECONOMICS AND FINANCE

LUISS

Department of Economics and Finance - RoME Masters in Economics

New Media and Populism

Master's Thesis in Political Economics

Riccardo Manghi

Supervisor: Prof. Francesco Sobbrio

Academic Year 2018-19

Abstract

Exploiting data from PEW's political surveys, I try to assess the impact of social media exposure on support for Trump. To deal with the endogeneity of internet's use, I perform two event studies: the DDoS cyberattack of October 2016 and the Cambridge Analytica scandal. The results show a small significant positive effect on attitudes toward immigrants in the first event study and no effect on political preferences on both the exercises, that could be explained by the too-short-duration of the first event and by the presence of another opposite indirect effect (that comes from the reduction of trust in the capability of institutions to protect privacy) in the second event.

1 Introduction

In this period, populist parties are gaining consensus in almost all western societies. This ascent has begun after the economic crisis of 2008 and has been enlarged by following period of economic insecurity, especially in Europe, with the sovereign' bonds crisis. It is therefore not surprising that in recent years many authors have concentrated on analyzing this phenomenon. Guiso, Herrera et al. (2018), using individual data on voting from different european countries, tried to characterize the main drivers of the demand and the supply of populism. They showed that economic insecurity is one of the key drivers of both the demand and the supply, and that populist parties are more likely to emerge when countries are faced with a systemic crisis of economic security. Taking into account tornout incentives, that appear to be very relevant in this context, they found that economic insecurity drives consensus toward populist platforms both directly and indirectly, affecting trust in institutions and opinions toward immigrants. Consistently with these findings, Becker et al. (2017) showed that the populations groups that were more exposed to economic insecurity were also more likely to vote for Brexit, and that the drivers for this vote are very similar to the drivers of voting the right-wing french anti-establishment party of Marine Le Pen, while Dal Bò et al.(2018), analyzed the rise of the right wing party Sweden Democrats, considering a series of policy reforms between 2006 and 2011 that enlarged the gap between insiders and outsiders in the labour market and the financial crisis of 2008 to assess the impact of economic insecurity and found that economic "losers" determined the rise of the populist party, mainly through the decrease in their trust in institutions, bringing another evidence in favour of this indirect channel through which economic insecurity increases the demand for populism. This pattern seems to be common in all EU countries: also Algan et al. (2017) found a strong correlation between the grow in unemployment and support for populism, and also between unemployment and attitudes toward migration and between unemployment and trust towards national and European institutions. All this evidence strongly suggest that economic insecurity is an important factor in the rise of populism, increasing populist's consensus directly

(causing unemployment and worse economic conditions that increase tornout incentives) and indirectly (causing a decline of trust in institutions and worsening attitutes toward immigrants). Therefore frustration and discontent following the economic crises result in a decline in trust for mainstream parties and status quo institutions due to their inability to manage this negative shocks, and this mistrust and frustration push citizens to vote for populists. Comparing data on support for populism in countries that had different institutional costraints in managing the financial crises, Guiso et al. (2018) showed that support for populists increased where governments action to manage negative shocks was more costrained, thus leading more mistrust and discontent toward institutions that result in anger and in the desire for radical change. Since social networks and, in particular, Facebook, are able to connect rapidly a huge number of people and transfer emotional states via emotional contagion (Kramer et al. 2014), exposure to social networks can facilitate and accelerate the above mentioned mechanism. In fact, recent literature has found evidence of the effects of internet usage on political opinions. Sobbrio, Campante and Durante (2013) showed that the diffusion of ADSL broadband in Italy has increased political participation for the benefit of the five star movement, while Schaub and Morisi (2019) find a positive correlation at the individual level between use of the internet as the main source of political information and voting for populist parties, but not for other, mainstream parties. Studying the welfare effects of Facebook through a randomized experiments in which users selected randomly were asked to deactivate their account for few weeks, Gentzkow (2019) find that Facebook's usage increases political polarization. This is the unique paper that direcly looks at the effect of a social network, but it regards more welfare and is not focused on politics as this thesis. Another channel through which new media can affect support for populist platforms is the diffusion of fake news. Since ranking algorithms based on popularity generate an advantage for fewer websites reporting a given signal that led them to attract relatively more traffic overall (Germano and Sobbrio, 2018), this explains the diffusion of misinformation on internet, and especially how websites that produce fake news can attract relatively more traffic because they are few. Alcott and Gentzkow (2017) and Silverman (2016) highlighted how fake news can spread more easily in social media since content can be relayed

among users with no significant third party filtering, fact-checking, or editorial judgment so that an individual user with no track record or reputation can in some cases reach as many readers as Fox News, CNN, or the New York Times. In particular, Alcott and Gentzkow collected a database of fake news providing evidence of how these mainly favored Donald Trump. The database contained 115 pro-Trump fake stories that were shared on Facebook a total of 30 million times, and 41 pro-Clinton fake stories shared a total of 7.6 million times. The dynamic through which circulation of fake news in new media can affect user's beliefs has been described in Fernandes and Azzimonti (2017): they have developed a dynamic model that shows how the structure of social networks combined with the presence of fake news can increase the degree of polarization and misinformation in the society. In this model they explain how the presence of fake news can influence all the users, not only the less informed ones that are more likely to believe in a fake news. In fact, in their model there are two types of agents: partisan and non-partisans. Agents have a prior belief and update it observing signals from all the other users they are connected with and, even if only partisan users are connected with the fake news distributor (so that it has a direct effect only toward them), non-partisan users are connected also with partisans, so that fake news have an indirect effect also toward informed users. This is consistent with the phenomenon of emotional contagion above mentioned. Therefore, the fact that fake news spread more easily in social networks, together with the evidence of a major diffusion of pro-Trump fake news, and the large evidence that fear and discontent increases populists' consensus, together with the fact that fear and discontent spread more easily in new media, should suggest that the more an individual is exposed to these social platforms, the more he should be likely to vote for Trump. Actually, even though I presented two channels of causality, they are very close to each other. The climate of economic insecurity, provoking anger and discontent towards those who previously governed (and therefore traditional parties) makes the propaganda on social networks more efficient for populist parties because fake news or posts that ride these feelings will spread more easily. Therefore the greater diffusion of fake news pro Trump found by Alcott and Gentzkow could be explained by the fact that populists take greater advantage of the spread of fake news precisely because they rely on discontent,

and therefore the two causality channels are actually two gears of the same mechanism that takes shape: economic insecurity causes fear and discontent, and populist parties take advantage of that to gain consensus by using the web and fake news to exploit the ability of social media to make viral content and produce emotional contagion. There is also another channel through which reducing the use of social media could influence support for Trump. As traditional media tends to be pro-Democrats, a decrease in the use of new media could be accompanied by greater use of mainstream media and thus greater exposure to Democratic-friendly sources of information. This dynamic however is difficult to be relevant as there is self selection in the traditional media (there are still media pro Republicans like Fox News). To deal with the endogeneity of internet' s use, I performed two event studies: the first is a distributed denial of service (ddos) cyberattack that has interrupted access to internet for several hours in US on 23 October 2016; the other is the Cambridge Analytica scandal, that caused a contraction in the demand for social media due to complains over privacy. For both events, I tested also a possible indirect channel that arise from a decline in trust in institutions that both events should have caused (and this should have a positive impact on populists' consensus), regressing a measure of trust on the event dummy. Data are taken from PEW's political surveys. For the dDos attack, this channel appears to be not relevant, and there appear to be no effect on support for Trump. This could be due to the fact that one day of reduction of exposure to social media is not enough to produce changes in political preferences, but since it can influence opinion on some issues that are particularly capable of engaging emotionally, I have also tested attitudes toward migration, obtaining a small evidence that opinions in regards to immigration were less severe on the day of the attack. For the Cambridge Analytica event study, the indirect channel seems to be relevant since I obtained a small significant negative coefficient regressing a measure of trust on the event dummy. Thus, the no effect observed regressing support for Trump on the post-event dummy can be interpreted with the fact that the two channels cancel out each other. The heterogeneity analysis gives results that are consistent with this interpretation: controlling for the interaction between education and the event dummy, the coefficient of the effect of the event on support for Trump appears to be negative, but with a biggest positive coefficient for the

6

interaction. This suggest that for the more educated people the indirect channel is more relevant, given that they are less likely to believe in fake news and so a reduction of social network's usage would affect them less. The remainder of the thesis is organized as follows: in section 2 I discuss how to define populism and I present and describe both the events; in section 3 the surveys used to construct the datasets are described and the datasets are summarized; in section 4 I outline the empirical strategy and I present the economic specification used to run the regressions; finally, in section 5 the results are presented and discussed.

2   Background

First of all, it is worth to state a precise definition of what I mean with populism. In order to do this and in line with the common view in political science, I rely on the definition given in Mudde (2004): "an ideology that considers society ultimately separated into two homogeneous and antagonist groups, 'the pure people' versus the 'corrupt elite'". Pretending to be the only political representer of people is a charateristics that we can find in populist parties of all countries. In particular, focusing in the US, we can identify Donald Trump with this characteristic. Another definition of populism is also given in Guiso, Herrera et al. (2018), in which populist parties are characterized by "parties that implement short run protection policies with disregards of their long run effects". Also according to this definition, given the release of Trump from the Paris agreements and its trade policy on duties, his faction is included in the definition of populism. So the main objective of my thesis is to test if there is a relation between exposure to social network and support for Trump. Internet's usage has obvious issues of endogeneity, since there are many observable and unobservable factors that can predict both time spent on internet and political preferences, such as age, income or the type of work. In order to exploit some exogenous variation in the use of social media, I performed an event study approach considering two different events: the distributed Denial of service (dDos) attack occurred in the US on 23 October 2016, and the Cambridge Analytica scandal that broke out on 18 March 2018.

2.1 DDOS attack

A denial-of-service attack (DoS attack) is a cyber-attack in which the perpetrator seeks to make a machine or network resource unavailable to its intended users by temporarily or indefinitely disrupting services of a host connected to the Internet. Denial of service is typically accomplished by flooding the targeted machine or resource with superfluous requests in an attempt to overload systems and prevent some or all legitimate requests from being fulfilled. In a distributed denial-of-service attack (DDoS attack), the incoming traffic flooding the victim originates from many different sources. This effectively makes it impossible to stop the attack simply by blocking a single source. The biggest series of attacks of this kind occurred on 23 October 2016, and has been called 2016 Dyn cyberattack. The first distributed denial-of-service (DDoS) attack began at 7:00 a.m. (EDT) and was resolved by 9:20 a.m. A second attack was reported at 11:52 a.m. and Internet users began reporting difficulties accessing websites. A third attack began in the afternoon, after 4:00 p.m. At 6:11 p.m., Dyn reported that they had resolved the issue. So this attack exogenously reduced for almost all day access to many websites, including social networks and online media sources. But if the random timing of the attack and its nature ensure an exogenous reduction of internet's usage equal for all users, on the other hand the duration of this reduction is very short, and is very unlikely to produce some effect on political preferences. But it is still possible to test the channel that relies on emotional contagion: according to Kramer et al. (2014) surfing on social network people can be emotionally infected by the posts they see without being aware of it, and this could affect their vision on certain topics. For example, if a father has just seen a Facebook post about an illegal immigrant who murdered and raped girls, he might be less tolerant than usual in his opinions regarding illegal immigration during that day. This dynamic could produce a permanent change in opinions on some topic in the long term, which for some individuals could also orient their electoral choice differently. Therefore, although probably no one will have changed his political opinion after the cyberattack, it may be that the reduction of exposure to fake news or news aimed at feeding anger and discontent on that day may change the response to certain outcomes, such as opinion on illegal immigration, com-

pared to what would happen in a day of ordinary exposure to social networks and online platforms.

For this reason, in this exercise I compared not only the political preferences of the individuals interviewed after the attack with the ones before, but also the opinion toward migration of the individuals interviewed the day of the attack with the ones interviewed before.

2.2 The Cambridge Analytica Scandal

The Cambridge Analytica data scandal was a major political scandal in early 2018 when it was revealed that Cambridge Analytica had harvested the personal data of millions of people's Facebook profiles without their consent and used it for advertising purposes. After this scandal, worried about their privacy, many users have deleted their profile. According to a survey conducted by Techpinions ("US consumers want more transparency on Facebook"), after the scandal 9% of Facebook users deleted their account, while 27% signicantly reduced their usage of the social platform.
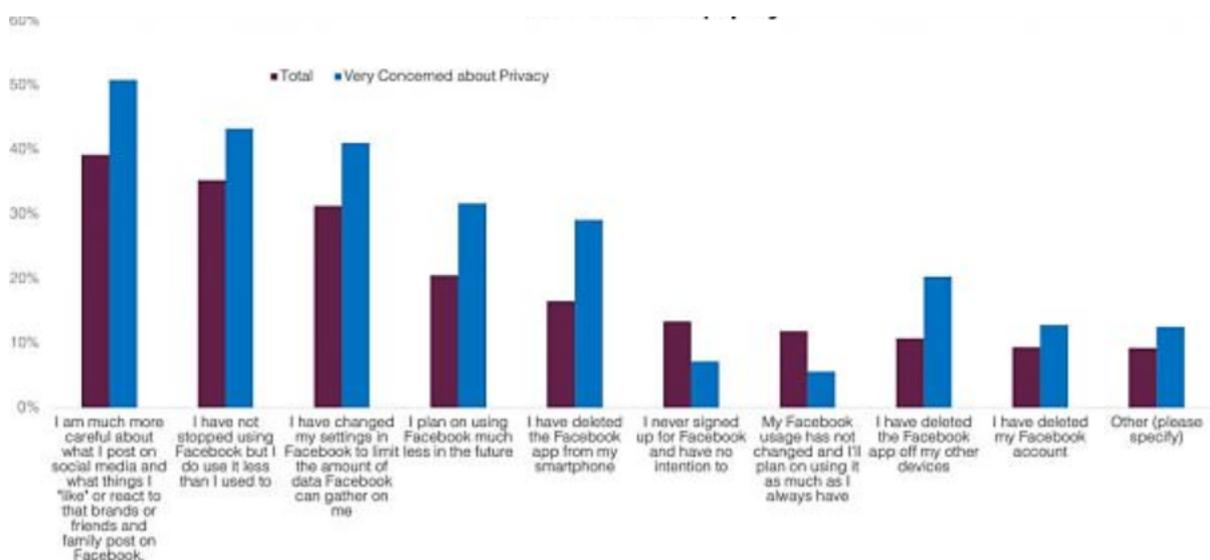
Figure 1: In this survey, Techpinion analysts asked people about the changes they made because of the concerns over privacy arised after the Cambridge Analytica incident. In general, 36% of the sample said they were very concerned about privacy, while 41% said they were somewhat concerned

9

That the scandal gave rise to a great concern for privacy is understandable since the company Cambridge Analytica used People's data to define its psychometric profile and sell this information to companies. But there is a strong suspicion that Donald Trump was also among the buyers of this information, as Steve Bannon, co-founder of Cambridge Analytica, is also the chief stratebuilder of Trump's campaign. So this scandal could negatively affect consent to Trump not only the decrease of exposure to social networks, but also through the suspicion that the current President may have benefited indirectly from the activity of the company. Thus, this event is much more sizable than the previous one and it caused for many users a persistent reduction of exposure to social media that may have changed political preferences. On the other hand, it has several disadvantages: first of all the reduction of facebook's usage is endogenous and possibly heterogeneous across individuals, and this makes necessary the heterogeneity analysis with respect to socio-demographic observables; also, as I will explain in the next section, I used two different datasets for the control and the treatment group using surveys conducted with three months of distance: so it is impossible to exclude the interference of concurring events in that time window.

3   The Data

As main source of individual data, I used political surveys from PEW Research Center.

Regarding the DDos attack, I used a survey conducted by PEW with telephone interviews with a nationally representative sample of 2,583 adults, age 18 or older, living in the United States, from October 20-25, 2016. This survey included question regarding various issues, from migration to vote intentions, and it has been conducted across the day of the attack. Summary statistics are reported below:

For the analysis of the Cambridge Analytica scandal event, indeed, I had to use

two different surveys, always from PEW, for the treatment and the control group, since I was not able to find a political survey or a dataset with observations ob-

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
sex	2,542	1.459	0.498	1	2
age	2,542	50.80	17.76	18	94
hisp	2,542	1.912	0.624	1	9
income	2,542	5.968	2.658	1	10
white	2,493	0.790	0.407	0	1
black	2,493	0.105	0.307	0	1

Table 1: The table above reports summary statistics for the main observable variables. The sample is constructed to be representative of the US population

tained across the day of the event (18 March 2018). The March 2018 Political Survey has been obtained telephone interviews with a nationally representative sample of 1,466 adult, from March 7 to 14, and has been used for the control group, while the June 2018 survey has been obtained with a representative sample of 2,002 individuals interviewed from June 5 to 12 to compose the treatment group. The difficulties that arise from taking two different samples do not only concern the possibility of the presence of concurring events, but also the fact that, since the questions of the two surveys, in general, differ, it is more difficult to construct measures for the different outcomes. Balancing tests are not needed in this case since, as we can see from the summary statistics reported below, both samples are representative of the US population.

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
sex	1,967	1.451	0.498	1	2
age	1,967	51.93	18.11	18	94
educ	1,967	5.051	1.828	1	9
income	1,967	6.179	2.667	1	10
hispanic	1,780	0.139	0.346	0	1
white	1,780	0.756	0.430	0	1
black	1,780	0.106	0.307	0	1

Table 2: The above table reports summary statistics for the control group.

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
sex	1,430	1.416	0.493	1	2
age	1,430	53.00	17.91	18	96
educ	1,430	5.266	1.908	1	9
income	1,430	6.180	2.602	1	10
hispanic	1,279	0.0837	0.277	0	1
white	1,279	0.791	0.407	0	1
black	1,279	0.125	0.331	0	1

Table 3: In this table are reported summary statistics for the treatment group

4 Empirical Strategy

As breviously explained in the previous section, I planned to exploit exogenous variations in exposure to social media implementing two event study analysis: one consists in comparing political preferences and attitudes toward migration of the individuals interviewed after the cyberattack occurred on 23 October 2016 with the ones of the individuals interviewed before, while the other consists in comparing political preferences of the individual interviewed before the Cambridge Analytica scandal and the individual interviewed three months later. These strategy rely on the assumption that the timing of the interviews with respect to the events is as good as random, and, in the case of the Cambridge Analytica scandal, on the stronger assumption that there should not be any relevant concurring event in the time window between the two surveys. Both events can have a direct and an indirect effect on support for populism. The direct channel is the one we are mainly interested on: since the events cause a reduction on the exposure to social networks, and since exposure to social networks may increase the likelihood of supporting populists through the dissemination of fake news and the greater ease with which they spread fear and discontent, there should be a negative effect of the events on populist's consensus. Nevertheless both events may raise concerns about privacy and data security on social network, thus leading to a decrease in trust in institutions, particularly in their ability to ensure respect for privacy by powerful multinationals such as facebook. This should lead to an increase in the consensus of populist parties, given their anti-

establishment rhetoric. To test the first channel I exploit questions about support for Donald Trump (present in all the surveys) and, just for the DDos, also about opinion toward illegal immigrants. I was not able to test for this outcome also in the Cambridge Analytica's exercise since for that analysis I had to use two different surveys, and questions about migration and refugees were present only in the post-event survey. Regarding the second channel, for the DDos attack, since in the survey there were no questions regarding the capability of institutions of ensuring privacy protection, I used confidence in the fairness of the electoral process as a proxy for trust in institutions, while for the CA scandal I had to use a question available in both surveys (pre and post), regarding the confidence toward the ability of the federal prosecutor to investigate Russian interferences in the 2016 elections on the web. Since the federal prosecutor is an institutional figure, this question should at least partially capture trust in the ability of the institutions in protecting safety and privacy on the web.

4.1 Econometric specification

To test for all the outcomes I used the same econometric specification, so that the estimating equation is the same for all the regressions:

$$y_i = \alpha + \beta EVENT_i + \gamma X_i + \rho_s + \epsilon_i \tag{1}$$

- y_i: the outcome of the regression (respectively support for Trump, trust in institutions and opinion toward immigrants)

- $EVENT_i$: a dummy that takes the value 1 if the individual has been interviewed after the event (respectively the DDoS attack and the Cambridge Analytica scandal

- X_{it}: a vector of controls that contains individual's age, age squared, education, income, sex, race and religion

- ρ_s: state FE

We can think at the regression in which trust in institution is the outcome as a sort of first stage of the indirect channel: it tests whether the events have effectively reduced trust in institutions. To test for the "first stage" of the direct channel I needed questions about social media's usage. Unfortunately, similar questions were available only in the pre-CA survey, so it was impossible to implement this step for none of the two events.

To alleviate the complains regarding this fact, we can however consider that the hacker attack clearly has relevance as it has prevented access to social media on that day, while the already mentioned Technopinions interviews highlighted how the decrease of the use of Facebook due to Cambridge Analytica scandal has been so relevant that is reasonable to assume it is at least partially reflected in our data.

4.2 Balancing

As stated above, main identification assumption is that the timing of the interview with respect to the events should be as good as random, i.e., the samples should be balanced so that the treatment and control units are comparable. In the case of the Cambridge Analytica scandal, since treatment and control groups are composed by individuals interviewed in two different surveys, and that those surveys are both conducted by PEW with the same methodology, both groups are a representative sample of the US population and this validate our identification assumption. In the case of the cyberattack, indeed, it is necessary to test whether the sample is not balanced with respect to some observables. Results are showed in the table below:

The main problem can arise from the lack of hispanic people in the day of the attack. To alleviate this concern I ran all the regressions also in the sample obtained by dropping hispanic people. To manage the fact that the coefficient for age is significant, indeed, I ran the regressions also dividing the sample in differ-

	(1)	(2)	(3)	(4)	(5)	(6)
	AGE.	SEX.	EDUC2	Hispanic	white	black
DDoS	2.0555**	0.0274	0.0158	-0.0338***	0.0230	0.0177
	(1.0030)	(0.0251)	(0.1104)	(0.0094)	(0.0200)	(0.0162)
Obs.	2,542	2,542	2,542	2,493	2,493	2,493
R2	0.0024	0.0005	0.0000	0.0042	0.0006	0.0006
	(7)	(8)	(9)	(10)	(11)	
	ADULTS	CHILD	RELIG	ATTEND	INCOME	
	-0.0609	-0.5539	-0.2112	0.0109	-0.0210	
	(0.0434)	(0.4838)	(0.6247)	(0.0689)	(0.1487)	
Obs.	2,542	2,542	2,542	2,542	2,542	
R2	0.0014	0.0004	0.0000	0.0000	0.0000	

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 4

The above table reports the results of the regression of the observables on the dummy of the event. The results show that there are less hispanic people interviewed in the day of the attack and older people

ent age-based subsamples.

5   Results

5.1   DDoS

For the first analysis I tested the effect of the event on opinion toward migration, trust in institution and political preferences. I repeated the analysis in the subsamples without hispanic people and in different subsamples based on age range to alleviate concerns arisen from the balancing test. Then I also implemented a robustness test by testing the outcomes to two alternative treatments: the first compares the individuals interviewed after the attack with the ones interviewed before and the second compares the individuals interviewed the day of the attack with the ones interviewed the day before the attack. Regarding the indirect

channel, I used a question about the confidence in the fairness of the elections to measure trust in institutions, and tested whether it decreased after the event. Considering that any change in confidence in the ability of institutions to guarantee web security following cyberattack would be a change of opinion due to the event itself, and cannot be, as in the case of the opinion on immigration or other political outcomes, the result of an emotional contagion occurred by looking at posts or news in social networks, therefore less permanent, to test the trust in institutions I used as main treatment every day after the attack. Results are showed in table 2:

	Trust
Interviewed post DDos	0.0354
	(0.0493)
Observations	2475
R-squared	0.041

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5: Confidence on the fairness of the election is used as a measure of trust in insitutions and regressed on the post-event dummy. The coefficient is not significant so that does not appear to be any significant effect of the event on trust in institutions. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

The results are still not significant also using the other two treatments (day of the attack vs. days before and day of the attack vs. the day before) and also dropping hispanic from the sample. Since trust in institutions appear to be unchanged after the event, it is unlikely to have produced any effect on political preferences through this indirect channel. This allow us to consider the coefficient of the regression of the intention to vote on the event as the effect of the event on political preferences. The results of the regressions on the main treatment for the full sample and the non hispanic subsample are reported in the tables below:

	(1)
	Would vote Trump
Interviewed the day of the dDos	0.0260
	(0.0270))
Observations	1,915
R-squared	0.2576
Robust standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

Table 6: Support for Trump is regressed on the dummy that takes the value 1 in the day of the attack. The coefficient is positive but not significant (p-value is around 0.6). Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	(1)
	Would vote Trump
Interviewed the day of the dDos	0.0267
	(0.0285)
Observations	1,866
R-squared	0.2557
Robust standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

Table 7: The same regression of table 3 is runned after having dropped hispanic people. Results are quite identycal. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

Both results are not significant, and this result is robust also to the alternative treatments (tables are reported in appendix). From the following tables we can see that there is not any effect of the cyberattack on political preferences for none of the age groups:

This is not surprising, since the duration of the reduction of exposure to internet caused by the DDoS attack is too short to produce significant effects on political

	(1)	2
	Would vote Trump- 26-35	Would vote Trump- 36-50
Interviewed day of DDoS	0.0309	0.0794
	(0.0946)	(0.0556)
Observations	217	398
R-squared	0.4062	0.3785
	(3)	(4)
	Would vote Trump 50-65	Would vote Trump 65+
	-0.0063	0.0606
	(0.0388)	(0.0627)
Observations	674	499
R-squared	0.2873	0.2992

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 8: The same regression of table 4 is runned in the subsamples relative to different age groups. Results are still not significant. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

preferences. In fact, both hypothesized channels of causality (diffusion of fake news and amplification and contagion of feelings of fear and discontent) can influence the thought of an individual on a particular topic associated with the post that he reads during the day, but to change the voting intentions this influence must be persistent, relevant and addressed on several topics, and therefore this change can only occur with a longer exposure. For this reason, while no effect on voting intentions was expected, the effect of the event on the opinion regarding immigration is not so unlikely to appear, given that immigration is one of those topics very capable of arousing emotions of anger and fear in people, and on which Trump has focused a lot in his political campaign, in addition to having detected a large number of fake news on this topic (When Fact Don't Matter: how to communicate more effectively about immigration's costs and benefits, Working Paper by Migration Policy Institute, 2019). Then, this could be an indirect channel through which also political preferences can be affected in the long run, as described in Guiso, Herrera et al. (2018).

	US should accept refugees
Interviewed day DDos	0.0265**
	(0.0125)
Observations	2447
R-squared	0.1101

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 9: Opinion toward migration is regressed on the day-of-the-attack-dummy. Results are significant at 5% level. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	US should accept refugees
Interviewed day DDos	0.0296**
	(0.0128)
Observations	2322
R-squared	0.1132

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 10: Opinion toward migration is regressed on the day-of-the-attack-dummy, in the subsample obtained by dropping hispanic people. Results are still significant at 5% level. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

In fact the results of table 6 show a small positive impact on the event on opinion toward migration: the result is suggestive, but it must be said that the level of significance and the size of the sample are small. This result is practically the same if the sample is restricted to non hispanic people (table 7), but lose significativeness if the outcome is tested with the alternative treatments (results in appendix). The fact that the result is not robust when comparing individuals interviewed in the days after the attack is explained by the nature of the mechanism exposed before: in the days after the attack, the exposure to social network restarts and so an individual can be emotionally influenced by posts or fake news against migration every subsequent day. The loss of significativeness of the last treatment, indeed,

can be explained with the fact that when comparing individuals interviewed the day before vs. the day of the attack the sample becomes too small.

5.2 Cambridge Analytica

In the second event study, I tried to assess the impact of Cambridge Analytica scandal on support for populist platforms. As discussed before, there should be two opposite effects: one comes from the direct channel we are mainly interested in (the reduction of the use of facebook by users concerned about their privacy) and should cause a reduction in support for Trump, while the other comes in the trust reduction in the ability of institutions to guarantee privacy on the web, and, by generating discontent with institutional authorities, should endorse populist rhetoric and therefore have a positive effect on Trump's consensus. To run all the regressions, I compared individuals interviewed in the March 2018 PEW political survey (conducted before the scandal) and the one conducted on June 2018 (after the scandal). I exploited a question regarding confidence in the ability of the federal procurement to investigate Russian interference in the 2016 elections to measure confidence in the ability of traditional institutions to guarantee security on the web. To make sure that this question and the question about Trump support were not collinear, I tested the correlation between the two and there is a bit of variation (the correlation coefficient is 0.48). Then, regressing this measure of trust on the dummy of the event, I obtained a sort of first stage for the indirect channel. Since there is a small negative effect of the event on trust on the federal

procurement, this should predict a positive effect on support for Trump. Then, if we interpret the coefficient of the regression of Trump's support on the event dummy as the effect of the reduction of the exposure to Facebook on political preferences, we should consider the result to be biased upward. The validity of this considerations relies on the strong assumption of the absence of concurring event: even if no major event has occurred in that time window, it is impossible to exclude that did not happen nothing relevant enough to produce significant effects on political preferences.

	Trust in federal procurement
Interviewed post-CA Scandal	-0.0389 *
	(0.0212)
Observations	2960
R-squared	0.0445

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 11: Regression of trust on the capability of federal procurement to investigate over Russian interference in 2016's elections on the event dummy. Results show a small negative effect, significant at the 10% level. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

As mentioned above, testing the first stage for the direct channel was impossible because there were no questions on the use of the internet or facebook that were present both in the pre- and post-survey. Howewer, it is important to recall that the survey conducted by Technopinions in the USA found, after the scandal, the cancellation of the Facebook account by 9% of Americans and a drastic reduction in the use of the social platform by another 27%. These data are sufficient to reasonably suppose that the reduction of the use of facebook following the Cambridge Analytica scandal is also reflected in the PEW data. Then the regression of support for Trump on the event dummy should show the overall effect deriving from the two causal mechanisms.

	Would vote Trump
Interviewed post-CA Scandal	-0.003
	(0.014)
Observations	2911
R-squared	0.2099

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 12: The table shows the results of the regression of support for Trump on the Cambridge Analytica scandal. The coefficient is almost zero and is not significant.Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	Would vote Trump
Interviewed post-CA Scandal	-0.009
	(0.015)
Trust in federal procurement	-0.276***
	(0.0192)
Observations	2911
R-squared	0.2099

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 13: The table shows the results of the regression of support for Trump on the Cambridge Analytica scandal when trust in federal procurement is added as a control. The coefficient is almost zero and is still not significant.Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

As we can see from table 12 and 13, there appears to be no overall effect, and this could be due to the fact that none of the channels had a significant effect on political preferences. But this result can also mean that the two opposite effects canceled each other. An individual may have been struck by the scandal, canceled facebook and drastically worsened his opinion towards the social platform, towards the risks towards privacy that it represents and towards the institutions' ability to stem this danger. All this could increase his discontent with institutions and bring him closer to populist parties. On the other hand however, the cancellation of facebook and the reduction of his exposure to post and fake news for a prolonged period, could dampen his opinion on certain issues and its discontent canceling the effect of the scandal. In order to provide insights not only regarding this issue, but also the possible heterogeneity in the reduction of facebook's usage, I performed an heterogeneity analysis with respect to the socio-demographic observable variables. There are several reasons for which reduction of facebook' s usage after Cambridge Analytica can be heterogeneous: those who deleted their account presumably care more about their privacy and this can be correlated with a lot of factors which can in turn influence political preferences. Therefore I tested

the interaction of the event with the variables age, sex, education, income, religion and race. The only relevant result is obtained when I test the interaction with education:

VARIABLES	(1) support for Trump
Interviewed after CA	-0.0795
	(0.0526)
interaction	0.0183*
	(0.0106)
Highest level of school/degree	-0.0538***
	(0.00756)
age	0.00403
	(0.00285)
hispanic	-0.286***
	(0.0455)
black	-0.438***
	(0.0275)
relig	-0.000219
	(0.00116)
attend	-0.0543***
	(0.00594)
sex	-0.108***
	(0.0193)
income	0.00954**
	(0.00406)
Constant	1.024***
	(0.0991)
Observations	2,911
R-squared	0.211

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 14: In the following table support for Trump is regressed on the event dummy, the standard set of controls and a variable (interaction) that represents the interaction between education and the event. The coefficient of the event dummy is negative, significant at the 15% level, while the coefficient of the interaction is positive, significant at 10% level. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

Table 14 shows that the general effect of the event on political preferences is negative, except for the more educated people, for which it becomes positive. The

fact that the interaction coefficient is positive should derive from the fact that a reduction of facebook's usage should affect less political opinions of the more educated people. In fact, one of the causality channels (and indirectly also the other) I hypothesized is that facebook's usage exposes individuals to fake news and misinformation, and clearly the more educated an individual is the less he is likely to believe in fake news or being influenced from captious posts aimed at hitting more emotionally than rationally.

6 Conclusion

The enormous consensus gained by populist parties throughout the Western world is, as shown by the studies described in introduction, certainly a consequence of the climate of economic instability that has generated mistrust and discontent towards parties and traditional institutions. The intent of this thesis was to show how this consequence was amplified and accelerated by the diffusion of social networks. I found a significant evidence that opinions towards immigrants were less severe on the day when Internet access had been drastically reduced by the DDoS attack. This suggests that the emotional contagion that happens in social networks can affect the perception of certain issues, and this dynamic could in the long term get to change the intentions of voting. No effect on support to populists, obtained from regressions, can be explained by the fact that in the first event the duration of the reduction of internet's usage is too short and in the second the effect of reducing access to social networks could be balanced with the reduction in trust in the institutions caused by the scandal. For this reason the possibility remains that exposure to social networks can play a decisive role in influencing the intentions of voting. The best way to analyze this theme with a stronger empirical design could be to use the same methodology as Gentzkow (2019), namely to implement an experiment in which individuals disable their Facebook account for a period of time to observe the effects on various political issues and on the intentions of voting.

7 References

L. Guiso, H. Herrera, M. Morelli, T. Sommo (2017): "Populism: Demand and Supply". EIEF Working Papers Series 1703, Einaudi Institute for Economics and Finance (EIEF).

S. Becker, T. Fetzer, D. Novy (2017): "Who voted for Brexit? A comprehensive district-level analysis". Economic Policy, Volume 32, Issue 92, October 2017, Pages 601–650.

Y. Algan, S. Guriev, E. Papaioannou, E. Passari (2017): "The European Trust Crisis and the Rise of Populism". BPEA Conference Drafts, September 7–8, 2017.

E. Dal Bò, F. Finan, O. Folke, T. Persson, J. Rickne (2018): "Economic Losers and Political Winners: Sweden' s Radical Right".

L. Guiso, H. Herrera, M. Morelli, T. Sommo (2018): "Global Crises and Populism: the Role of Eurozone Institutions". Economic Policy.

A. Kramer, J. E. Guillory, J. T. Hancock (2014): "Experimental evidence of massive-scale emotional contagion through social networks". PNAS June 17, 2014 111 (24) 8788-8790; first published June 2, 2014.

F. R. Campante, R. Durante, F. Sobbrio (2013):"Politics 2.0: The Multifaceted Effect of Broadband Internet on Political Participation".NBER Working Paper No. 19029.

M. Schaub, D. Morisi (2019): "Voter mobilization in the echo chamber: Broadband internet and the rise of populism in Europe". Carlo Alberto Notebooks, ISSN 2279-9362, N. 584, March 2019.

H. Allcott, L. Braghieri, S. Eichmeyer, M. Gentzkow (2019): "The Welfare Effects of Social Media". NBER Working Paper No. 25514.

F. Germano, F. Sobbrio (2018): "Opinion Dynamics via Search Engines (and Other Algorithmic Gatekeepers)". Economics Working Papers 1552, Department of Economics and Business, Universitat Pompeu Fabra, revised Mar 2018.

H. Allcott, M. Gentzkow (2017): "Social Media and Fake News in the 2016 Election". Journal of Economic Perspectives—Volume 31, Number 2—Spring 2017—Pages 211–236.

BuzzFeed News. No date. "Election Content Engagement." [A spreadsheet] https://docs.google.com/spreadsheets/d/1ysnzawW6pDGBEqbXqeYuzWa7Rx2mQUip6CXUU

M. Azzimonti, M. Fernandes (2017):"Social Media Networks, Fake News, and Polarization". NBER Working Paper No. 24462.

Mudde, Cas (2004): "The Populist Zeitgeist." Government and opposition, 39(4), 541-563.

Techpinions survey: "US Consumers Want More Transparency from Facebook" (2018), link at https://techpinions.com/us-consumers-want-more-transparency-from-facebook/52653.

8 Appendix

8.1 Tables for the robustness tests of the DDoS event study

	(1)
	Would vote Trump
interviewed after ddos	-0.0161
	(0.0484)
Observations	1,900
R-squared	0.2560

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 15: This table reports the results of the regression of political preferences on the first alternative treatment for the whole sample. Results are still not significant. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	(1)
	Would vote Trump
Interviewed in the day of the attack	0.0094
	(0.03539)
Observations	853
R-squared	0.3077

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 16: This table reports the results of the regression of political preferences on the second alternative treatment(which compares the day of the attack with the day before) for the whole sample. Results are still not significant. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	(1)
	Would vote Trump
Interviewed after ddos	-0.0182
	(0.0498)
Observations	1,854
R-squared	0.2547

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 17: This table reports the results of the regression of political preferences on the first alternative treatment for the sample without hispanic people. Results are still not significant. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	(1)
	Would vote Trump
Interviewed the day of the attack	0.0094
	(0.0545)
Observations	685
R-squared	0.3060

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 18: This table reports the results of the regression of political preferences on the second alternative treatment(which compares the day of the attack with the day before) for the sample without hispanic people. Results are still not significant. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	US should accept refugees
Interviewed after DDos	0.0134
	(0.0219)
Observations	2447
R-squared	0.1088

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 19: Opinion toward migration is regressed on the first alternative treatment. Results are not significant with this treatment. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	US should accept refugees
Interviewed the day of the DDos	0.0328
	(0.0237)
Observations	853
R-squared	0.1608

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 20: Opinion toward migration is regressed on the second alternative treatment. The coefficient is still positive but results lose significativeness (p-value is 0.17) . Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	US should accept refugees
Interviewed after DDos	0.0113
	(0.0233)
Observations	2322
R-squared	0.1115

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 21: Opinion toward migration is regressed on the first alternative treatment for the sample without hispanic people. Results are not significant with this treatment. Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

	US should accept refugees
Interviewed the day of the attack	-0.0186
	(0.0433)
Observations	685
R-squared	0.2835

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 22: Opinion toward migration is regressed on the second alternative treatment (day of the attack vs. the day before) in the sample without hispanic people. Results are not significative . Standard error are clustered at state level and state fixed effects are captured with 50 dummy variables, one for each state.

8.2 How main variables are measured

To perform the analysis in this thesis, I created three different variables in the first event study and two in the second. For the dDos exercise, the new variables are "Would vote Trump" (a dummy which takes the value one if the individual said that if the elections were held in that moment, he would have vote Trump), "US should accept refugees" (a dummy that takes the value one if the individual said that he thinks that USA have the responsability to accept refugees in the country) and "Confidence in the fairness of the elections" (a dummy that takes the value one if the individual said that he is confident that the electoral process will take place in a fair and regular way). These variables are constructed to measure, respectively, support for Trump, attitudes toward migration and trust in institutions. In the Cambridge Analytica exercise, indeed, the variable "Would vote Trump" is a dummy that takes the value one if the individual stated to be satisfied with the way Donald Trump is handling his job as President, while "Confidence in the federal procurement" is a dummy that takes the value one if the individual said to be very or somewhat confident that the special counsel of the Department of Justice Robert Mueller will conduct a fair investigation on the Russian interferences in 2016's elections. These two questions were present both in the pre-scandal and in the post-scandal surveys.

9 Summary

In this period, populist parties are gaining consensus in almost all western societies. This ascent has begun after the economic crisis of 2008 and has been enlarged by following period of economic insecurity, especially in Europe, with the sovereign' bonds crisis. It is therefore not surprising that in recent years many authors have concentrated on analyzing this phenomenon. Guiso, Herrera et al. (2018), using individual data on voting from different european countries, tried to characterize the main drivers of the demand and the supply of populism. They showed that economic insecurity is one of the key drivers of both the demand and the supply, and that populist parties are more likely to emerge when countries are faced with a systemic crisis of economic security. Taking into account tornout incentives, that appear to be very relevant in this context, they found that economic insecurity drives consensus toward populist platforms both directly and indirectly, affecting trust in institutions and opinions toward immigrants. Consistently with these findings, Becker et al. (2017) showed that the populations groups that were more exposed to economic insecurity were also more likely to vote for Brexit, and that the drivers for this vote are very similar to the drivers of voting the right-wing french anti-establishment party of Marine Le Pen, while Dal Bò et al.(2018), analyzed the rise of the right wing party Sweden Democrats, considering a series of policy reforms between 2006 and 2011 that enlarged the gap between insiders and outsiders in the labour market and the financial crisis of 2008 to assess the impact of economic insecurity and found that economic "losers" determined the rise of the populist party, mainly through the decrease in their trust in institutions, bringing another evidence in favour of this indirect channel through which economic insecurity increases the demand for populism. This pattern seems to be common in all EU countries: also Algan et al. (2017) found a strong correlation between the grow in unemployment and support for populism, and also between unemployment and attitudes toward migration and between unemployment and trust towards national and European institutions. All this evidence strongly suggest that economic insecurity is an important factor in the rise of populism, increasing populist's consensus directly

(causing unemployment and worse economic conditions that increase tornout incentives) and indirectly (causing a decline of trust in institutions and worsening attitutes toward immigrants). Therefore frustration and discontent following the economic crises result in a decline in trust for mainstream parties and status quo institutions due to their inability to manage this negative shocks, and this mistrust and frustration push citizens to vote for populists. Comparing data on support for populism in countries that had different institutional costraints in managing the financial crises, Guiso et al. (2018) showed that support for populists increased where governments action to manage negative shocks was more costrained, thus leading more mistrust and discontent toward institutions that result in anger and in the desire for radical change. Since social networks and, in particular, Facebook, are able to connect rapidly a huge number of people and transfer emotional states via emotional contagion (Kramer et al. 2014), exposure to social networks can facilitate and accelerate the above mentioned mechanism. In fact, recent literature has found evidence of the effects of internet usage on political opinions. Sobbrio, Campante and Durante (2013) showed that the diffusion of ADSL broadband in Italy has increased political participation for the benefit of the five star movement, while Schaub and Morisi (2019) find a positive correlation at the individual level between use of the internet as the main source of political information and voting for populist parties, but not for other, mainstream parties. Studying the welfare effects of Facebook through a randomized experiments in which users selected randomly were asked to deactivate their account for few weeks, Gentzkow (2019) find that Facebook's usage increases political polarization. This is the unique paper that direcly looks at the effect of a social network, but it regards more welfare and is not focused on politics as this thesis. Another channel through which new media can affect support for populist platforms is the diffusion of fake news. Since ranking algorithms based on popularity generate an advantage for fewer websites reporting a given signal that led them to attract relatively more traffic overall (Germano and Sobbrio, 2018), this explains the diffusion of misinformation on internet, and especially how websites that produce fake news can attract relatively more traffic because they are few. Alcott and Gentzkow (2017) and Silverman (2016) highlighted how fake news can spread more easily in social media since content can be relayed

among users with no significant third party filtering, fact-checking, or editorial judgment so that an individual user with no track record or reputation can in some cases reach as many readers as Fox News, CNN, or the New York Times. In particular, Alcott and Gentzkow collected a database of fake news providing evidence of how these mainly favored Donald Trump. The database contained 115 pro-Trump fake stories that were shared on Facebook a total of 30 million times, and 41 pro-Clinton fake stories shared a total of 7.6 million times. The dynamic through which circulation of fake news in new media can affect user's beliefs has been described in Fernandes and Azzimonti (2017): they have developed a dynamic model that shows how the structure of social networks combined with the presence of fake news can increase the degree of polarization and misinformation in the society. In this model they explain how the presence of fake news can influence all the users, not only the less informed ones that are more likely to believe in a fake news. In fact, in their model there are two types of agents: partisan and non-partisans. Agents have a prior belief and update it observing signals from all the other users they are connected with and, even if only partisan users are connected with the fake news distributor (so that it has a direct effect only toward them), non-partisan users are connected also with partisans, so that fake news have an indirect effect also toward informed users. This is consistent with the phenomenon of emotional contagion above mentioned. Therefore, the fact that fake news spread more easily in social networks, together with the evidence of a major diffusion of pro-Trump fake news, and the large evidence that fear and discontent increases populists' consensus, together with the fact that fear and discontent spread more easily in new media, should suggest that the more an individual is exposed to these social platforms, the more he should be likely to vote for Trump. Actually, even though I presented two channels of causality, they are very close to each other. The climate of economic insecurity, provoking anger and discontent towards those who previously governed (and therefore traditional parties) makes the propaganda on social networks more efficient for populist parties because fake news or posts that ride these feelings will spread more easily. Therefore the greater diffusion of fake news pro Trump found by Alcott and Gentzkow could be explained by the fact that populists take greater advantage of the spread of fake news precisely because they rely on discontent,

and therefore the two causality channels are actually two gears of the same mechanism that takes shape: economic insecurity causes fear and discontent, and populist parties take advantage of that to gain consensus by using the web and fake news to exploit the ability of social media to make viral content and produce emotional contagion. There is also another channel through which reducing the use of social media could influence support for Trump. As traditional media tends to be pro-Democrats, a decrease in the use of new media could be accompanied by greater use of mainstream media and thus greater exposure to Democratic-friendly sources of information. This dynamic however is difficult to be relevant as there is self selection in the traditional media (there are still media pro Republicans like Fox News). To deal with the endogeneity of internet' s use, I performed two event studies: the first is a distributed denial of service (ddos) cyberattack that has interrupted access to internet for several hours in US on 23 October 2016; the other is the Cambridge Analytica scandal, that caused a contraction in the demand for social media due to complains over privacy. For both events, I tested also a possible indirect channel that arise from a decline in trust in institutions that both events should have caused (and this should have a positive impact on populists' consensus), regressing a measure of trust on the event dummy. Data are taken from PEW's political surveys. For the dDos attack, this channel appears to be not relevant, and there appear to be no effect on support for Trump. This could be due to the fact that one day of reduction of exposure to social media is not enough to produce changes in political preferences, but since it can influence opinion on some issues that are particularly capable of engaging emotionally, I have also tested attitudes toward migration, obtaining a small evidence that opinions in regards to immigration were less severe on the day of the attack. For the Cambridge Analytica event study, the indirect channel seems to be relevant since I obtained a small significant negative coefficient regressing a measure of trust on the event dummy. Thus, the no effect observed regressing support for Trump on the post-event dummy can be interpreted with the fact that the two channels cancel out each other. The heterogeneity analysis gives results that are consistent with this interpretation: controlling for the interaction between education and the event dummy, the coefficient of the effect of the event on support for Trump appears to be negative, but with a biggest positive coefficient for the

interaction. This suggest that for the more educated people the indirect channel is more relevant, given that they are less likely to believe in fake news and so a reduction of social network's usage would affect them less. The remainder of the thesis is organized as follows: in section 2 I discuss how to define populism and I present and describe both the events; in section 3 the surveys used to construct the datasets are described and the datasets are summarized; in section 4 I outline the empirical strategy and I present the economic specification used to run the regressions; finally, in section 5 the results are presented and discussed. The enormous consensus gained by populist parties throughout the Western world is, as shown by the studies described in introduction, certainly a consequence of the climate of economic instability that has generated mistrust and discontent towards parties and traditional institutions. The intent of this thesis was to show how this consequence was amplified and accelerated by the diffusion of social networks. I found a significant evidence that opinions towards immigrants were less severe on the day when Internet access had been drastically reduced by the DDoS attack. This suggests that the emotional contagion that happens in social networks can affect the perception of certain issues, and this dynamic could in the long term get to change the intentions of voting. No effect on support to populists, obtained from regressions, can be explained by the fact that in the first event the duration of the reduction of internet's usage is too short and in the second the effect of reducing access to social networks could be balanced with the reduction in trust in the institutions caused by the scandal. For this reason the possibility remains that exposure to social networks can play a decisive role in influencing the intentions of voting. The best way to analyze this theme with a stronger empirical design could be to use the same methodology as Gentzkow (2019), namely to implement an experiment in which individuals disable their Facebook account for a period of time to observe the effects on various political issues and on the intentions of voting.