

The Power of the Internet? Millennials, Baby Boomers and Voting in Europe

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Abstract: Voting turnouts across Europe have been in decline for at least three decades, especially among younger citizens. This research investigates the possible role of internet use and online political activity in encouraging voting for citizens in Europe in 2016, with a particular focus on younger generations, who may now have an online advantage in internet communication. Eventually, their advantage could lead them to a higher electoral participation than older voters. A strong digital presence can provide more political activism as well as less unequal participation, making the technology an equalizer for political engagement. This article employs data from Round 8 of the European Social Survey to test whether internet use and online political posting can give younger generations a comparative advantage in voting, offsetting the impact of education or income, which are viewed as sources of unequal participation among citizens.

Keywords: internet, voting, generation, Europe, Millennials

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Introduction

Voting turnouts across Europe have been in decline for at least three decades. Research on levels of electoral participation has presented the severity of the political apathy: a loss of 15-20% in voter participation (Dalton 2014; Solijonov 2016). This finding applies specifically to younger generations in Europe, with an average turnout of only 51% for individuals under the age of 25 (Fieldhouse *et al.* 2007). The progression of electoral decline correspond to an expansion of internet use and online political participation. Eurostat data for 2017 confirm broader internet availability: 87% of households in Europe have internet access. The level of online communication opportunities varies from country to country, with Iceland and the Netherlands at the top of the internet access ranking with 98% of households. At the same time, nations like Bulgaria (67%) and Greece (71%) can be found at the bottom of the European households internet scale. In a paradoxical situation, individuals have become progressively more engaged online, but citizens have also deserted polling stations more frequently. How can this be? Studies on internet use presented digital access as a facilitator of political activism, a new communication technology with a positive impact on civic engagement and political involvement in general (Polat 2005).

This paper investigates the possible role of internet use and online political communication in predicting and encouraging voting for citizens in Europe in 2016, with a particular focus on younger generations, who may now have an online advantage in internet communication. If Millennials are identified as the age group most adept to online political communication and activism, their advantage can lead them to higher electoral participation than older voters. Online political information and discussions are considered to be typical characteristics of online participation. More and better information, as well as participation in online discussions such as

blogging on Facebook or tweeting on Twitter, bring a positive impact on voting probabilities (Tolbert and McNeal 2003). More equal access to the internet can provide more political activism as well as less unequal participation, making the technology an equalizer for political engagement (Xenos *et al.* 2014).

The digital native generation has the resources to offset the decline in voting turnouts through the use of internet communication and online political posting and sharing. Additionally, more young voters influenced by their online political experience have the opportunity to vote more consistently, without the possible limitations that are generally associated with economic status and educational stratifications (Verba *et al.* 1995; Schlozman *et al.* 2010). Recent data from the 2018 Flash Eurobarometer have provided some hope. When individuals under 30 in Europe were asked whether they had voted in any election within the previous three years, 64% stated they had cast a ballot. This finding shows a growth in electoral participation among young Europeans: an increase of 18% in comparison to 2014 data. Can these positive findings relate to the political behavior of digital natives in today's politics? Do Millennials vote more because of their online activities? Can the internet finally help closing the voting gap between generations?

With the use of 2016 data from the European Social Survey (ESS), this paper evaluates the possible impact of an online comparative advantage on voting for Millennials, with regard to the Baby Boomers generation.¹ The next section of the paper presents the literature on voting across generations and the influence of online communication on voting. The third section introduces the argument on the advantage of the Millennials in comparison to the Baby Boomers, and the fourth section presents the data and hypotheses for the research. The last two sections of the paper discuss the findings from the statistical testing and present the overall conclusions from this research.

Internet, Voting and Generations

The established decline in voting turnouts in Europe is particularly concerning because it directly affects younger generations. The voting gap between young citizens and old individuals across democracies has widened over time (Wattenberg 2003; Tolbert and McNeal 2003). Policy decisions as driven by an older electorate have the potential to affect social spending for the needs of young citizens: education, unemployment benefits, or training opportunities and job placements. Members of the Baby Boom generation seem to benefit from their higher commitment to voting, as well as from the size of their own age group. Lower turnout levels for younger citizens are also a byproduct of a shrinking generational group. Demographic studies on Europe have recorded a larger group of older citizens, whereas young generations are getting smaller (Goerres 2010). Young Europeans are fewer than before and choose to vote less frequently than in the past. This situation impacts the legitimacy of democratic governments, which are less likely to be supported by an increasingly larger number of politically apathetic youth.

Data on European turnouts for younger individuals varies across countries. Europe-wide averages stand at about 60% (Goerres 2010). Yet, the gap between countries is significant. Austria and Italy recorded the highest turnout (79%) for voters under 30, according to the 2018 Flash Eurobarometer. Countries with the lowest numbers instead, Luxembourg (35%) and Ireland (36%), registered less than half the turnout of the top performers on the same ranking. A smaller political influence for younger citizens is more severe where the overall national turnout is also lower (Fieldhouse *et al.* 2007). However, electoral apathy for younger voters does not mean necessarily an absolute political disengagement. Young activists are still strong participants in cases of unconventional political behavior (Caren *et al.* 2011; Melo and

Stockemer 2014). If protest opportunities like petitions, street marches or boycotts, appeal to younger generations, a more traditional activism like voting has lost its ground. Young Europeans are politically engaged, but they are not dedicated voters.

Reasons for unimpressive voting turnouts among young citizens have multiplied with each additional study. Researchers have discussed a lack of voting habit or a low level of competence among the most frequently mentioned causes of electoral decline (Wattenberg 2003). Young individuals are generally less knowledgeable about the political system they live in than members of older generations. Moreover, they tend to have less information about politics or political issues, unless something affects them directly. Low political interest and efficacy are equally important predictors of lower turnouts for young citizens (Fieldhouse *et al.* 2007).

If age has become an even more influential variable in predicting voting, internet access represents a less clear factor in explaining why people cast a ballot. Over the last two decades studies on the impact of internet use on voting have agreed on its potential with regard to political activism. As a direct link, internet access gives users the ability to obtain a vast amount of information very quickly (Tolbert and McNeal 2003; Schlozman *et al.* 2010). Online platforms and forums allow for more political discussions, debates and contributions, creating a version of digital democracy (de Zúñiga *et al.* 2010). The new web 2.0 has developed into a tool for recruitment and mobilization: platforms such as Facebook and Twitter are now powerful political machines (Carlisle and Patton 2013; Schlozman *et al.* 2010). In brief, internet access better prepares and convinces users to vote. Yet, the strength of this type of relationship is not very clear.

If the connection between internet engagement and voting is weak, the indirect impact remains strong. Previous publications have underlined a positive correlation between online and offline

political activism, in particular for young individuals (de Zúñiga *et al.* 2010; Schlozman *et al.* 2010; Hirzalla and van Zoonen 2011). Online participation in politics positively contributes to higher political activism, which includes voting (Xenos *et al.* 2014; Schlozman *et al.* 2010). Although studies on the political relevance of the internet focus on a variety of political actions, voting represents the most basic activity of political expression. Internet use increases online political participation, which encourages voting behavior.

The relevance of internet activism on voting has been scrutinized more closely for the expectation that online activism may foster increased political engagement, while limiting socio-economic inequalities in participants. Contrary to inequalities in participation registered in the old fashioned version of political action (Verba *et al.* 1995; Marien *et al.* 2013; Dalton 2014), the concern surrounding unequal opportunities for voting remains real, even as other forms of political activism have undermined the impact of citizens' inequalities (Sloam 2013). Previous attempts at studying the positive impact of internet communication on political activism have confirmed the negative role of socio-economic inequalities in participants (Schlozman *et al.* 2010). Yet, the advancement in internet communication and online political involvement over the last decade, in particular with regard to the Millennials, can now have a positive impact on younger voters, regardless of socio-economic inequalities, such as income or education.

Almost three decades after the internet changed social communication, it can actually affect political activism and more directly voting, limiting the role of inequalities. In this sense, the overall expectation is for online political access and action to incentivize voting and reduce the influence of certain socio-economic factors, by making political behavior more equal. The internet could solve the problem of lower voting turnouts for young Europeans and help with the achievement of a more equal electoral participation, regardless of economic status or education

(Anduiza *et al.* 2009). If this indeed can be the case, Millennials could benefit the most from their exposure and use of internet communication, especially in comparison to older generations, such as the Baby Boomers.

The Advantage of Millennials

When internet access grew in the 1990s and early 2000s, scholars realized the new power of online communication. At that time, it was still Web 1.0: emailing, posting on public forums and reading websites for information about political candidates. Although some useful publications started to assess the influence of internet communication on politics, these studies remained limited in their understanding of the impact of online political activities on potential voters (Putnam 2000; Schlozman *et al.* 2010; Shah *et al.* 2005). The ‘digital divide’ had two important interpretations when research on internet and politics became more visible. The first meaning of digital divide referred to an issue with internet access. This obstacle was technological in nature and included the financial ability to own or have the use of a computer. Moreover, the access problem later linked to the geographic possibility of internet access via modem or cable (Sylvester and McGlynn 2010). This type of digital divide has by now been eliminated for the most part. The advent of cheaper computers, laptops and even tablets has easily increased the possibility to get online, regardless of a voter’s finances. Additionally, the more recent smart phone revolution has given high speed internet access to a generation of new voters, whose propensity to communicate online has become very strong on a daily basis. Ease of internet use and affordability of online connection have sparked a political growth in younger generations (Anduiza *et al.* 2009). Millennials have refuted the ‘slacktivist’ claim (Shah *et al.* 2005; Gladwell 2010) by developing a new version of online political mobilization. Younger generations possess

good resources to possibly become supercitizens: very politically active citizens who participates in the decision making process of their governments.

The second meaning of digital divide from the 1990s referred to the actual competence with the use of new online communication technology. College students started to use email for academic purposes, as businesses embraced electronic filing for cost reasons. Daily use of the internet gave an advantage to younger generations at that time, and it later became an expectation for every individual in the workforce. Older generations still managed to avoid using the internet until the early 2000s, when online communication quickly spread to many services in society. That type of competence based divide still exists in part, although the gap between generations is smaller today.

Since Millennials are the generation who has experienced internet communication from its beginning, they are now ready to embrace Web 2.0. In a sense, Millennials were socialized online, moving from a limited access to an extensive digital presence. Social networking on new platforms such as Twitter, Facebook or Instagram has contributed to the development of new forms of political activism. Online political engagement has allowed Millennials to create a new meaning for 'digital divide'. They are now able to use social media with a comparative political advantage: they can easily obtain political information, recruit potential sympathizers to their political cause and organize political movements across nations, if not the world. Social media participation is now dominated by younger citizens (Carlisle and Patton 2013; Schlozman *et al.* 2010). As younger generations are pushing the limits of political social networking, older generations are trying to adapt to the fast speed internet environment of politics.

[TABLE 1 HERE]

Table 1 presents data from the 2016 ESS, broken down by generations. In Europe, Millennials have the second highest daily internet use score in the population: 86.1%. This number puts them behind only Gen Z, with 90% of teenagers 18 or younger declaring to have used the internet daily. The corresponding percentage for Baby Boomers, an age group larger than the Millennials², was 37.2%. With regard to online political posting or sharing, almost one Millennial in three in Europe declared to be active online in such way. Only 9.5% of Baby Boomers stated that they posted or shared political content online within the previous 12 months. Younger individuals are confirmed to be more politically engaged online than older citizens. The online presence disadvantage for Baby Boomers does not hinder their electoral participation. Over 83% declared to have voted, which represents a positive lead of about 20% over the same number for Millennials. Older generations are still dominating the voting game in Europe, even when younger generations have online access advantages. Yet, a comparative voting advantage due to online technological dominance is in the making. The first evidence supporting Millennials in their possible attempt at shrinking the current voting gap with the Baby Boomers can be seen in Tables 2 and 3.

[TABLE 2 HERE]

According to ESS data from Table 2, there is a small gap of 4.8% between individuals who never used the internet or used it daily. Still, three out of four respondents who never used the internet declared to have voted at the last national election. However, only one in five respondents in the daily internet use category stated that they did not vote. For the never internet use category, that ratio was one in four. Every day internet users were less likely to abstain at a national election in Europe in 2016.

[TABLE 3 HERE]

Data from Table 3 confirms an even stronger relationship between online political posting and sharing and voting. Across Europe, people who shared online something about politics were more likely to have voted. The voting advantage of the online social media participants who engaged in political sharing and posting is 6.9%. Participating online, especially when it is about politics, creates a voting advantage for all citizens in Europe.

As data on internet use and participation among Europeans show a certain positive influence on voting, this type of advantage could be larger for an internet driven generation. It is now the time to study Millennials as the digitally native generation in politics, with a potential online advantage that can increase its voting probabilities with regard to the Baby Boomers. The internet could be the tool to close the generation voting gap and reduce the impact of socio-economic predictors, such as income and education, in younger voters.

Hypotheses and Variables

Hypotheses

In light of the discussion in the previous section, the expectation in this research is that internet use and online political posting will have a positive impact on voting. Individuals who use the internet more frequently and/or make or share political posts online will be more likely to vote. Internet access gives users a better ability to be informed in general, and with regard to politics as well. An increased knowledge of politics or political issues can drive people to become more committed to casting a ballot. Cognitive mobilization enables citizens to be more reliable voters (Dalton 2014), because it provides information, knowledge and sophistication to understand elections and the voting process. Online political sharing and posting in particular can empower social media users to express themselves politically and become more committed voters at

election time. Political knowledge is political power that the internet and online posting can turn into votes.

As new generations develop better digital communication skills, their online advantage could overcome other perceived disadvantages in their decision to vote. Research on the inequality of political participation has emphasized the role of income and education as strong predictors of voting. The impact of these two variables has concerning implications for any democracy.

Citizens in better financial status and with a higher level of education are more likely to vote, putting individuals in low income and education groups at a disadvantage in expressing their needs for policy changes at election time. The hope from the advancement of internet communication is for online citizens to be able to have equal access to information and action.

Among many possibilities, the internet could limit the influence of income and education on voting probabilities and provide voters with a stronger incentive to participate in elections than financial needs or educational preparation. For these reasons, the expectation in this research is that higher internet use and more online political posting will now have a stronger impact on voting, offsetting the unequal impact of education or income.

The first two hypotheses tested in the research are:

H₁: Internet use and online political posting or sharing have a positive impact on voting.

H₂: Internet use and online political posting or sharing have a stronger impact on voting than income or education.

In an online political context where younger internet users may have an advantage in online political communication, Millennials can be the generation in politics to benefit the most from internet access. If younger individuals are more competent and proficient in the use of online communication tools, their digital political experience can be transformed into a voting

advantage. Internet use and social media can help younger generations improve their voting probabilities more than older individuals. Although all internet users can benefit from political sharing while online, younger users may be gaining more from their internet presence than older people. In this situation, Millennials have the possibility of gaining ground over Baby Boomers with regard to voting. As Millennials and Baby Boomers improve their probabilities of voting with their online presence, younger internet participants may be able to close the voting gap vis à vis Baby Boomers. Older voters benefit from their income and education advantage, which makes them more likely to vote than younger citizens. This disparity can become less influential if internet use and online political posting help younger generations vote more in comparison. Older generations retain their income and education advantage in their higher probability to vote, but lose ground in voting when internet and online posting are considered in the calculation of voting probabilities. Millennials could have a comparative advantage to vote if their online experience is factored in.

For these reasons, the third and fourth hypotheses tested in the research are:

H₃: Internet use is associated with a higher voting probability in Millennials than in Baby Boomers.

H₄: Online political posting or sharing is associated with a higher voting probability in Millennials than in Baby Boomers.

Variables and Data

This study employs data from Round 8 of the European Social Survey, which includes 21 European countries,³ and a logistic regression model, where the dependent variable is ‘vote’, measured as a dummy variable.⁴ Among the independent factors in the statistical model, internet

use (Schlozman *et al.* 2010) and online political posting or sharing (Esser and de Vreese 2007) are expected to have a positive impact on voting probabilities, as users involved in online political activities tend to vote more. With regard to variables associated with cognitive mobilization, such as political information, confidence in political participation, political interest and perceived political efficacy (Verba *et al.* 1995; Esser and de Vreese 2007; Fieldhouse *et al.* 2007; de Zúñiga *et al.* 2010; Carlisle and Patton 2013; Dalton 2014), the expectations in the model are for those predictors to have also a positive impact on voting. Individuals with more political information available, higher political interest, stronger confidence in political action, and better perception of having an impact on the political system tend to be more likely to vote. Satisfaction with the quality of democracy experienced is also an independent variable expected to positively affect voting. Citizens who express a higher level of satisfaction with their democratic system are more likely to vote, because they perceive the political system as being receptive to their requests (Dalton 2016).

The group of socio-demographic variables included in the model represents the typical predictors in political behavior analysis. Age (measured as membership in a generation), income and education are all expected to increase a person's likelihood to vote. Older citizens and individuals with higher income and education are generally more likely to vote, as the literature presented has demonstrated. Gender is also a useful independent variable, but the type of impact it has on voting depends on other circumstances and contexts. Men used to be more likely to vote than women, but the gap has been closed (and at times reversed) in more advanced democracies. Finally, political ideology is used to assess whether a political propensity for the left or the right is more likely to convince citizens to vote. Historically, supporters of the left were more inclined

to use unconventional political action, whereas individuals on the right were associated more with voting (Torcal *et al.* 2016).

All these independent variables fit well within a voting model for European countries, where citizens have had a long experience with elections.

Findings and Discussion

The first results from the statistical model on voting in Europe are presented in Table 4. The logistic regression predicts correctly 82.1% of the cases in the European sample. Almost all the independent variables in the model behaved as expected. With the exception of political information and gender, all the predictors included have a positive impact on voting probabilities. Of particular interest to this research is the positive effect of internet use and online political sharing. Both variables increase the odds of voting for a person. An online presence improves the voting odds for a citizen by 6.4%, whereas sharing political posts changes the odds of voting by 15%. Citizens who are active online can become more reliable voters.

[TABLE 4 HERE]

In the same context, confidence in political participation and political efficacy improves the likelihood of individuals going to the polls. Among all the variables associated with cognitive mobilization, political interest has the strongest, positive impact on voting.⁵ By being more politically interested, an individual increases the odds of voting by 79.8%. Interest in a political campaign, often driven by specific issues, retains an important role in convincing people to vote: political interest strengthens the motivation to vote for citizens across Europe. In this same model, political information is not a statistically significant variable, and cannot be used to predict voting. This finding is somewhat surprising, as the amount of political information

citizens can access is almost unlimited and was a reliable predictor for voting in the past (Dalton 2014). Today, too much or too little political information does not seem to make a difference in convincing a person to vote in an election. Internet use and online political sharing are both associated with possible political information and could be variables contributing to the information overload.

An analysis of the influence of democracy satisfaction on voting reveals that citizens who are more satisfied with democracy have a higher likelihood of voting. People who believe in the democratic system are more reliable voters because they see voting as a foundation of the democratic process. Based on the first set of results from the logistic regression, H_1 is accepted: internet use and online political sharing or posting increase the odds of voting for citizens.

The results from the socio-demographic group of predictors confirm once more their relevance in studying political behavior. All of them are statistically significant, with generation representing the strongest positive impact on voting. Being a member of an older generation increases the odds of voting by 106.1%, an impressive advantage for Baby Boomers in showing up to the polls and affecting policy decisions in government. In a similar finding, education and income contribute positively to the likelihood of voting for citizens in Europe. A higher level of education increases the odds of voting by 6.4%, whereas a higher income⁶ leads to a jump in the voting odds of 23.8%. Political ideology records the smallest impact on voting than any of the other variables in the model. Individuals on the right of the political spectrum increase their odds of voting by 3.3% in comparison to individuals on the left. The last variable in the model, gender, has a negative effect on voting odds: men are less likely than women to vote.

To summarize Table 4, H_2 is in part rejected, and in part accepted. Internet use and online political sharing are still less influential than income by a good margin. However, those same

two variables are at least as relevant, if not more, with regards to education. Millennials without a high level of education may still have higher odds of voting because of their internet use and online political posting. A digital presence today can be more important than education in increasing the odds of voting in the population.

To test the last two hypotheses in the research, odds from the statistical results in Table 4 have been used to calculate the predicted voting probabilities for two generations in the sample: Millennials and Baby Boomers. Table 5 presents the average predicted probabilities for each of the age groups considered, for four variables, while holding all other variables in the model at their mean value.

[TABLE 5 HERE]

A comparison of the probabilities for Millennials and Baby Boomers for internet use, online political posting or sharing, income perception, and education confirms that each of those variables has a positive impact on voting. The predicted voting probabilities for individuals in the Baby Boomers generation remain consistently higher than the overall predicted probabilities for Millennials. However, data in Table 5 reveals that if younger individuals use the internet more frequently, make or share political posts online, enjoy a more comfortable life financially, and achieve a higher level of education, they can also contribute to close the gap in voting probabilities with regard to the Baby Boomers. Citizens in Europe from the Millennial generation have a comparative advantage in voting probabilities vis à vis older individuals. Both Baby Boomers and Millennials benefit from more internet, posting, income and education, but the younger age group is able to reduce the voting probabilities gap with the older group, gaining ground on older citizens, but never surpassing them.

To explain the calculation of the comparative probability advantage, internet use is presented as an example.⁷ From the data in Table 5, Millennials improve their voting probability from .6323 with no internet use to .6879 with every day internet use. They increase their probability of voting by 0.0556 (or 5.56%). Baby Boomers improve their voting probability from .8795 with no internet use to .9034 with every day internet use. They increase their probability of voting by 0.0239 (or 2.39%). So, voting probability for Millennials improves more when they start using the internet every day in comparison to Baby Boomers. Their comparative probability advantage for using the internet every day is $5.56 - 2.39 = 3.17\%$. The voting probability gap for Millennials and Baby Boomers for daily internet use is still 0.2155 ($0.9034 - 0.6879$) or 21.55% - down from 0.2472 ($0.8795 - 0.6323$) or 24.72% for no internet use. The Millennials' comparative advantage of 3.17% (if Millennials and Baby Boomers start using the internet every day) represents an improvement of about 12.82% in closing the voting probability gap between the two groups ($3.17/24.72$).

The comparative probability advantage data show a persistent gain in voting for Millennials: from as little as 1.78% to as large as 11.65%.⁸ Nevertheless, the overall predicted probabilities for voting are always higher for Baby Boomers than for Millennials: H_3 and H_4 are rejected. The assessment of income and education is particularly disappointing in the discussion of unequal political participation. The data reinforce the understanding that income and education have a disproportionate impact on voting probabilities in citizens: more income and education will make a stronger impact on convincing people to vote. In the sample studied in this research, a comfortable income and a college education have the potential to reduce the voting probability gap for Millennials by 28.67% and 36.75% respectively. Wealthier and more educated Millennials become more reliable voters than citizens with less education and financial

resources, but they also gain ground on wealthier and well educated Baby Boomers. At the same time, internet use and online political sharing contribute to the reduction of the voting probability gap for Millennials. However, their impact is much smaller: 12.82% and 7.84% respectively.

To sum up the relevance of the data from Table 5, all the variables boost the likelihood of voting in Millennials and Baby Boomers. The older generation retains the highest probability of voting, whereas the younger generation closes the voting probability gap in part, but not completely.

Conclusions

Voting patterns in Europe have revealed a population with limited electoral participation. A decline in voting turnouts seems to be more problematic for younger citizens, whereas older individuals remain committed to elections. Research on internet use and online political participation has theorized a positive contribution towards voting activity. Individuals with more internet use and online politically posts could become more reliable voters as their digital presence provides them with more information and motivation to express themselves politically at election time. Millennials are considered to be the most competent internet participants overall. Their online skills can benefit them in closing the voting gap currently existing with regard to Baby Boomers.

The hypotheses tested with the use of the ESS 2016 dataset have confirmed only in part the expected results. Both internet use and online political posting or sharing have a positive impact on voting. They contribute to an increase in voting probabilities across generations, but they favor Millennials more than Baby Boomers. However, this is not enough to close the voting probability gap between the two age groups completely. Additionally, the positive effect from an online digital presence cannot entirely offset the role of variables such as income or education,

which have been identified as sources of unequal electoral participation. A higher income or education improves the voting probability of Millennials and Baby Boomers, with a stronger positive impact than internet use or online political sharing. Yet, in the end the internet replicates the inequality in electoral activism already present before the digital era (Sloam 2013). If voting probabilities and turnouts can improve due to an online political presence, the web experience cannot overcome the disproportionate relevance of income or education. A final comment on attempts to boost voting turnouts among younger generations with the use of web political activism could be: do not get your hopes up.

References

- Anduiza, Eva, Marta Cantijoch, and Aina Gallego (2009). 'Political Participation and the Internet', *Information, Communication & Society*, 12:6, 860-78.
- Boulianne, Shelley (2009). 'Does Internet Use Affect Engagement? A Meta-Analysis of Research', *Political Communication*, 26:2, 193-211.
- Caren, Neal, Raj Ghoshal and Vanesa Ribas (2011). 'A Social Movement Generation: Cohort and Period Trends in Protest Attendance and Petition Signing', *American Sociological Review*, 76:1, 125-51.
- Carlisle, Juliet, and Robert Patton (2013). 'Is Social Media Changing How We Understand Political Engagement? An Analysis of Facebook and the 2008 Presidential Election', *Political Research Quarterly*, 66:4, 883-895.
- Dalton, Russell (2016). *The Good Citizen*. Los Angeles: Sage.
- Dalton, Russell (2014). *Citizen Politics*. Los Angeles: Sage.
- De Zúñiga, Homero, *et al.* (2010). 'Digital Democracy: Reimagining Pathways to Political Participation', *Journal of Information Technology & Politics*, 7:1, 36-51.
- Esser, Frank, and Claes de Vreese (2007). 'Comparing Young Voters' Political Engagement in the United States and Europe', *American Behavioral Scientist*, 50:9, 1195-1213.
- European Commission (2018). *European Youth*. Flash Eurobarometer 455.
- European Social Survey. *ESS Round 8: European Social Survey Round 8 Data (2016)*. Data file edition 2.0 NSD. Norwegian Social Science Data Services, Norway – Data Archive and distributor of ESS data for ESS ERIC.
- Fieldhouse, Edward, Mark Tranmer, and Andrew Russell (2007). 'Something about Young People or Something about Elections? Electoral Participation of Young People in Europe: Evidence from a Multilevel Analysis of the European Social Survey', *European Journal of Political Research*, 46:6, 797-422.
- Gladwell, Malcom (2010). 'Small Change' *The New Yorker*.
- Goerres, Achim (2010). 'Being Less Active and Outnumbered?', in J.C. Tremmel (ed.), *A Young Generation Under Pressure?* Berlin: Springer-Verlag.
- Hirzalla, Fadi, and Liesbet van Zoonen (2011). 'Beyond the Online/Offline Divide: How Youth's Online and Offline Civic Activities Converge', *Social Science Computer Review*, 29:4, 481-98.

- Marien, Sofie, Marc Hooghe, and Ellen Quintelier (2010). 'Inequalities in Non-Institutionalized Forms of Political Participation: A Multi-level Analysis of 25 Countries', *Political Studies*, 58:1, 187-213.
- Melo, Daniela, and Daniel Stockemer (2014). 'Age and Political Participation in Germany, France and the UK: A Comparative Analysis', *Comparative European Politics*, 12:1, 33-53.
- Polat, Rabia (2005). 'The Internet and Political Participation. Exploring the Explanatory Links', *European Journal of Communication*, 20:4, 435-59.
- Putnam, Robert (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.
- Schlozman, Kay Lehman, Sidney Verba, and Henry Brady (2010). 'Weapon of the Strong? Participatory Inequality and the Internet', *Perspectives on Politics*, 8:2, 487-509.
- Shah, Dhavan V., et al. (2005). 'Information and Expression in a Digital Age: Modeling Internet Effects on Civic Participation', *Communication Research*, 32:5, 531-65.
- Sloam, James (2013). "Voice and Equality": Young People's Politics in the European Union', *West European Politics*, 36:4, 836-58.
- Solijonov, Abdurashid (2016). *Voter Turnout Trends around the World*. Stockholm: International IDEA.
- Sylvester, Dari, and Adam McGlynn (2010). 'The Digital Divide, Political Participation, and Place', *Social Science Computer Review*, 28:1, 64-74.
- Tolbert, Caroline, and Ramona McNeal (2003). 'Unraveling the Effects of the Internet on Political Participation?', *Political Research Quarterly*, 56:2, 175-85.
- Torcal, Mariano, Tony Rodon, and María José Hierro (2016). 'Word on the Street: The Persistence of Leftist-dominated Protest in Europe', *West European Politics*, 39:2, 326-50.
- Verba, Sidney, Kay Lehman Schlozman, and Henry Brady (1995). *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge: Harvard University Press.
- Wattenberg, Martin (2003). 'Electoral Turnout: The New Generation Gap', *British Elections & Parties Review*, 13:1, 159-73.
- Xenos, Michael, Ariadne Vromen, and Brian Loader (2014). 'The Great Equalizer? Patterns of Social Media Use and Youth Political Engagement in Three Democracies', *Information, Communication & Society*, 17:2, 151-167.

¹ In this research the four generations considered are the following: Generation Z age group includes individuals born in 1999 or later; Millennials age group includes individuals born between 1981 and 1998; Generation X age group includes individuals born between 1962 and 1980; Baby Boomers age group includes individuals born in 1961 or earlier.

² See Table A2 in the Appendix for more detailed country level information about the Millennials and Baby Boomers group sizes in the ESS.

³ See Table A1 for a complete list of countries in the study.

⁴ See Table A2 in the Appendix for a complete list of variables, with descriptions and levels of measurement.

⁵ Online political sharing or posting has the fourth largest positive impact on voting overall in the model (+15%).

⁶ Income has the third largest positive impact on voting overall in the model (+23.8%).

⁷ Calculations for comparative voting probability advantage for the other variables were conducted in a similar manner.

⁸ See graphs A1, A2, A3 and A4 in Appendix for a visual representation of the variation in voting probabilities for Millennials and Baby Boomers.

Tables and Graphs

Table 1: Generational Breakdown:

Voting, Internet Use, Online Political Posting/Sharing in Europe (%)

	Generation Z ⁴	Millennials	Generation X	Baby Boomers
Voted Last Election ¹	12	64.9	78.4	83.8
Internet Use ² (Everyday)	90	86.1	69.5	37.2
Online Political Posting/Sharing ³	20.5	27.9	19.9	9.5

Source: European Social Survey 2016 (ESS). Valid percentage values only.

¹European level percentage of respondents who stated they voted at the last national election.

²European level percentage of respondents who stated they use the internet every day per generation.

³European level percentage of respondents who stated they ‘posted or shared anything about politics online last 12 months’ per generation.

⁴Actual valid count of Generation Z individuals in the European sample for the voting question only is 100 respondents, with 12 of them having stated to have voted at the last national election. The voting teenagers were in Austria (4), the Czech Republic (4), Estonia (2), and Hungary (2). Only Austria allows citizens as young as 16 years old to vote in national elections. Estonia allows citizens as young as 16 years old to vote in local level elections only. All this means that 8 respondents declared to have voted when they were not eligible yet. The total sample of respondents in this research includes 1361 individuals who were 17 or younger at the time of the survey, but only 100 answered the voting question.

Table 2: Internet Use and Voting in Europe (%)

Voted Last Election ¹	Frequency of Internet Use				
	Never	Only Occasionally	A Few Times a Week	Most Days	Every Day
Yes	74.3	73.7	75.7	76.8	79.1
No	25.7	26.3	24.3	23.2	20.9
Total	100	100	100	100	100

Source: European Social Survey 2016 (ESS). Valid percentage values only.

¹European level percentage of respondents who stated they voted at the last national election.

Table 3: Online Political Posting/Sharing and Voting in Europe (%)

Voted Last Election ¹	Online Political Posting/Sharing ²	
	Yes	No
Yes	83.8	76.9
No	16.2	23.1
Total	100	100

Source: European Social Survey 2016 (ESS). Valid percentage values only.

¹European level percentage of respondents who stated they voted at the last national election.

²European level percentage of respondents who stated they posted or shared anything about politics online last 12 months.

Table 4: Logistic Regression Results

Independent Variables	B	S.E.	Sig.	Odds	Odds Percentage Change
Internet Use	.062	.013	.000	1.064	+6.4
Online Political Posting or Sharing	.140	.046	.003	1.150	+15
Political Information	.000	.000	.222	1.000	0
Political Interest	.586	.022	.000	1.798	+79.8
Confidence in Political Participation	.109	.019	.000	1.115	+11.5
Political Efficacy	.072	.021	.001	1.075	+7.5
Satisfaction with Democracy	.043	.007	.000	1.044	+4.4
Gender	-.143	.032	.000	.867	-13.3
Generation	.723	.024	.000	2.061	+106.1
Income Perception	.214	.021	.000	1.238	+23.8
Education	.062	.005	.000	1.064	+6.4
Political Ideology	.032	.008	.000	1.033	+3.3

Data from European Social Survey 2016 (ESS). Nagelkerke R square is .184, and -2 Log likelihood is 25068.089. Percentage of cases predicted correctly: 82.1%. Dependent variable is 'Vote': respondents who stated they voted or did not vote at the last national election (No/Yes is codification of variable). Table A2 in Appendix has information on the measurement for all the variables in the model.

Table 5: Predicted Voting Probability for Millennials and Baby Boomers

Predicted Voting Probability	Internet Use		Online Political Posting/Sharing		Income Perception		Education			
	Never	Every Day	No	Yes	Very Difficult	Living Comfortably	0	12	16	20
Millennials	.6323	.6879	.6685	.6987	.5674	.7137	.4793	.6595	.7128	.7608
Baby Boomers	.8795	.9034	.8954	.9078	.8478	.9137	.7963	.8916	.9133	.9311
Comparative Advantage for Millennials	+3.17%, About 12.82% of voting gap closed		+1.78%, About 7.84% of voting gap closed		+8.04%, About 28.67% of voting gap closed		+11.65%, About 36.75% of voting gap closed for 16 years of education			

Predicted probabilities calculated holding all other variables in the model at their mean value. See Table A2 for measures of variables.

Appendices

Table A1: Voting, Internet Use, Online Political Sharing and Generations in Europe (%)

Countries ¹	Voted Last Election ²	Internet Use ³ (Everyday)	Online Political Sharing ⁴	Generation Z ⁵	Millennials ⁶	Generation X ⁷	Baby Boomers ⁸
Czech Republic	57.5	55.8	15.4	5.9	30.9	33.6	29.6
Lithuania	58.1	45.3	7.8	6.1	21.0	34.1	38.8
France	69.6	63.1	19.8	4.7	20.4	31.8	43.1
Switzerland	70.6	70.2	15.1	3.9	26.2	30.8	39.1
Estonia	71.9	59.1	13.4	2.8	25.2	29.9	42.1
Slovenia	72.7	54.4	9.7	3.9	23.0	31.8	41.4
Poland	74.3	47.8	6.3	3.6	28.0	29.5	38.8
Hungary	74.5	40.4	3.6	2.2	21.8	30.2	45.8
Italy	75.5	48.5	13.0	3.9	23.4	33.7	39.1
Portugal	75.5	48.7	22.0	2.2	22.6	30.7	44.5
Ireland	75.8	62.4	14.8	1.7	25.4	36.5	36.4
United Kingdom	77.5	67.0	28.3	2.7	25.7	30.8	40.9
Netherlands	82.1	81.5	19.4	3.9	24.1	31.4	40.7
Finland	83.3	75.6	20.6	3.0	23.8	29.2	44.0
Austria	83.9	55.0	17.8	1.2	24.9	36.1	37.8
Spain	84.6	58.0	22.4	2.1	21.6	36.8	39.5
Germany	86.1	66.3	23.0	4.7	24.5	31.9	38.9
Norway	88.1	84.7	29.2	4.3	27.5	32.7	35.6
Iceland	91.6	78.7	33.0	2.7	25.8	32.4	39.1
Belgium	92	65.9	18.5	3.6	27.2	33.2	36.0
Sweden	93.3	78.3	28.2	2.3	21.4	29.5	46.8
Total	78.2	59.2	18.9	3.5	24.5	32.5	39.6

Source: European Social Survey 2016 (ESS). Valid percentage values only.

¹Countries are listed in ascending order based upon voting turnouts.

²Country level percentage of respondents who stated they voted at the last national election.

³Country level percentage of respondents who stated they use the internet every day.

⁴Country level percentage of respondents who stated they 'posted or shared anything about politics online last 12 months'.

⁵Valid percentage of individuals whose age places them in the Generation Z age group (born in 1999 or later).

⁶Valid percentage of individuals whose age places them in the Millennials age group (born between 1981 and 1998).

⁷Valid percentage of individuals whose age places them in the Generation X age group (born between 1962 and 1980).

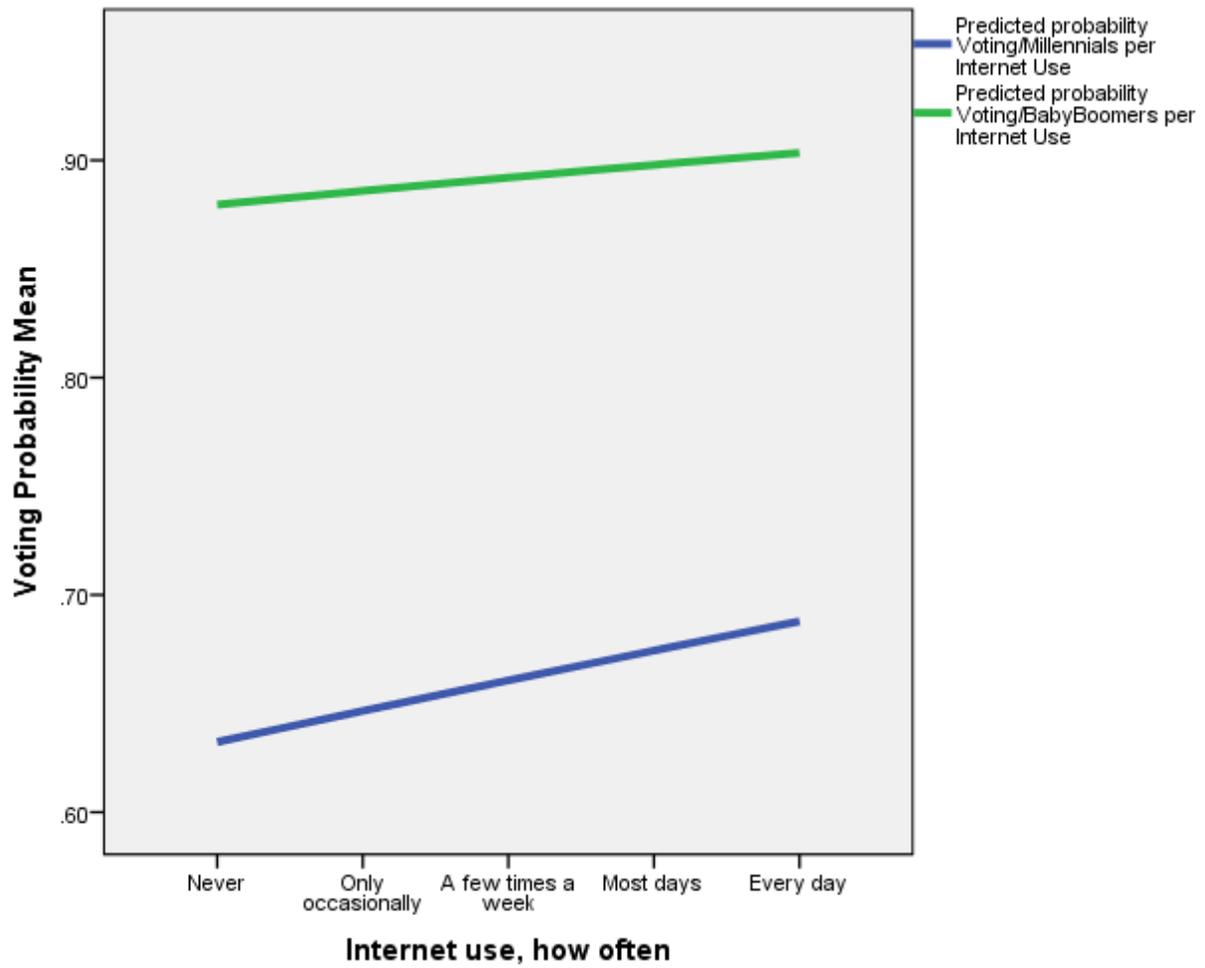
⁸Valid percentage of individuals whose age places them in the Baby Boomers age group (born in 1961 or earlier).

Table A2: Variable List: Description and Measure After Recoding

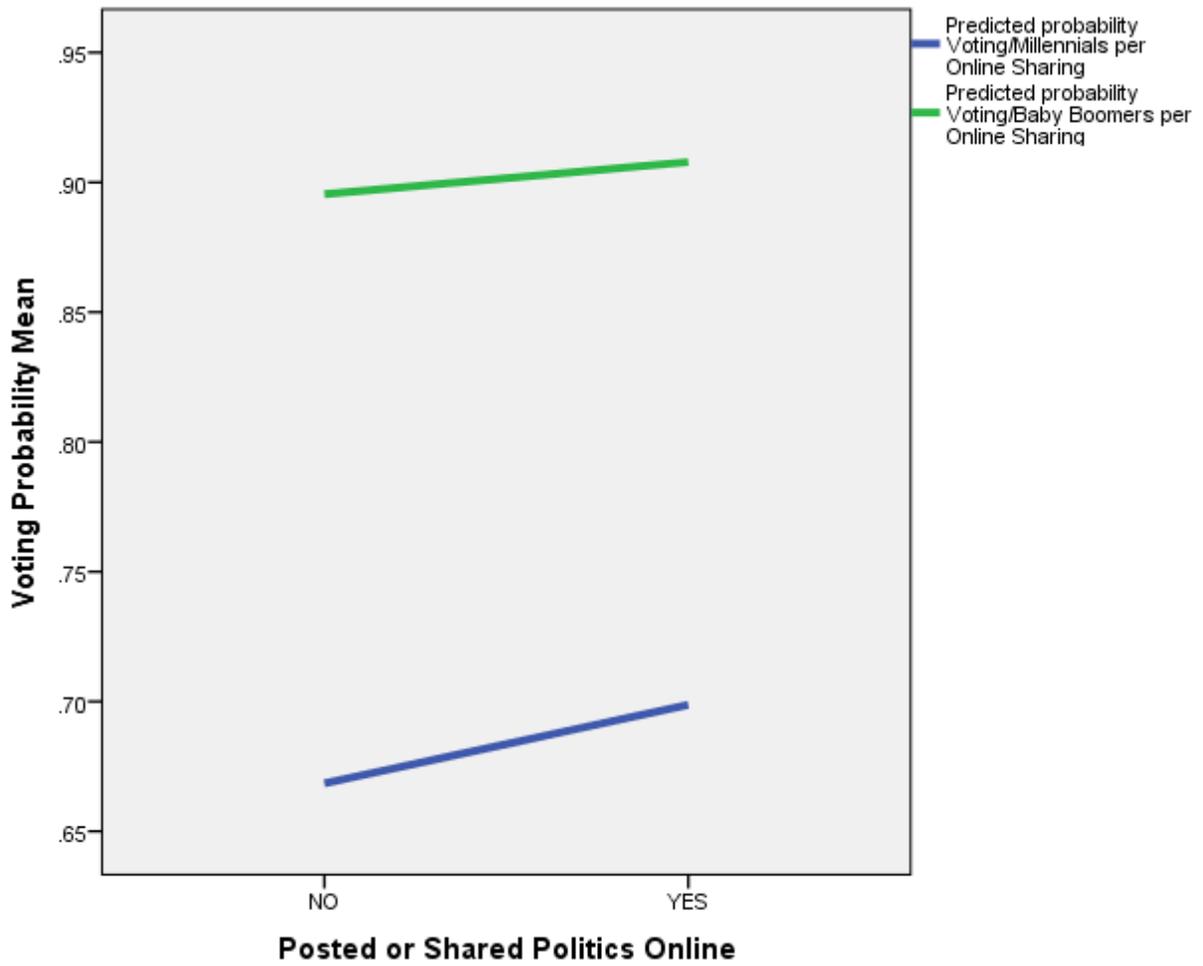
Variable	Survey Question	Type
Vote	Did you vote in the last national election...?	Categorical (no/yes)
Internet Use	How often do you use the internet for work or personal use?	Scalar (1=Never, 5=Every Day)
Online Political Posting or Sharing	During the last 12 months, have you posted or shared anything about politics online, for example on blogs, via email or on social media such as Facebook or Twitter?	Categorical (no/yes)
Political Information	On a typical day, how much time do you spend watching, reading or listening to news about politics and current affairs?	Continuous
Political Interest	How interest would you say you are in politics?	Scalar (1= Not at all Interested, 4= Very Interested)
Confidence in Political Participation	How confident are you in your ability to participate in politics?	Scalar (1= Not at all confident, 5= Completely confident)
Political Efficacy	How much would you say that the political system in [country] allows people like you to have an influence on politics?	Scalar (1= Not at all, 5= A great deal)
Satisfaction with Democracy	On the whole how satisfied are you with the way democracy works in country?	Scalar (0= Extremely Dissatisfied, 10= Extremely Satisfied)
Gender	Sex of the respondent	Categorical (female/male)
Generation	Age in years	Scalar (1= GenZ, 2= Millennials, 3= GenX, 4= Baby Boomers)
Income Perception	How do you feel about your household's income nowadays?	Scalar (1= Finding it very difficult on present income, 4= Living comfortably on present income)
Education	About how many years of education have you completed?	Continuous
Political Ideology	In politics people sometimes talk of "left" and "right". Where would you place on this scale?	Scalar (0=Left, 10=Right)

For more detailed information: www.europeansocialsurvey.org/methodology/questionnaire

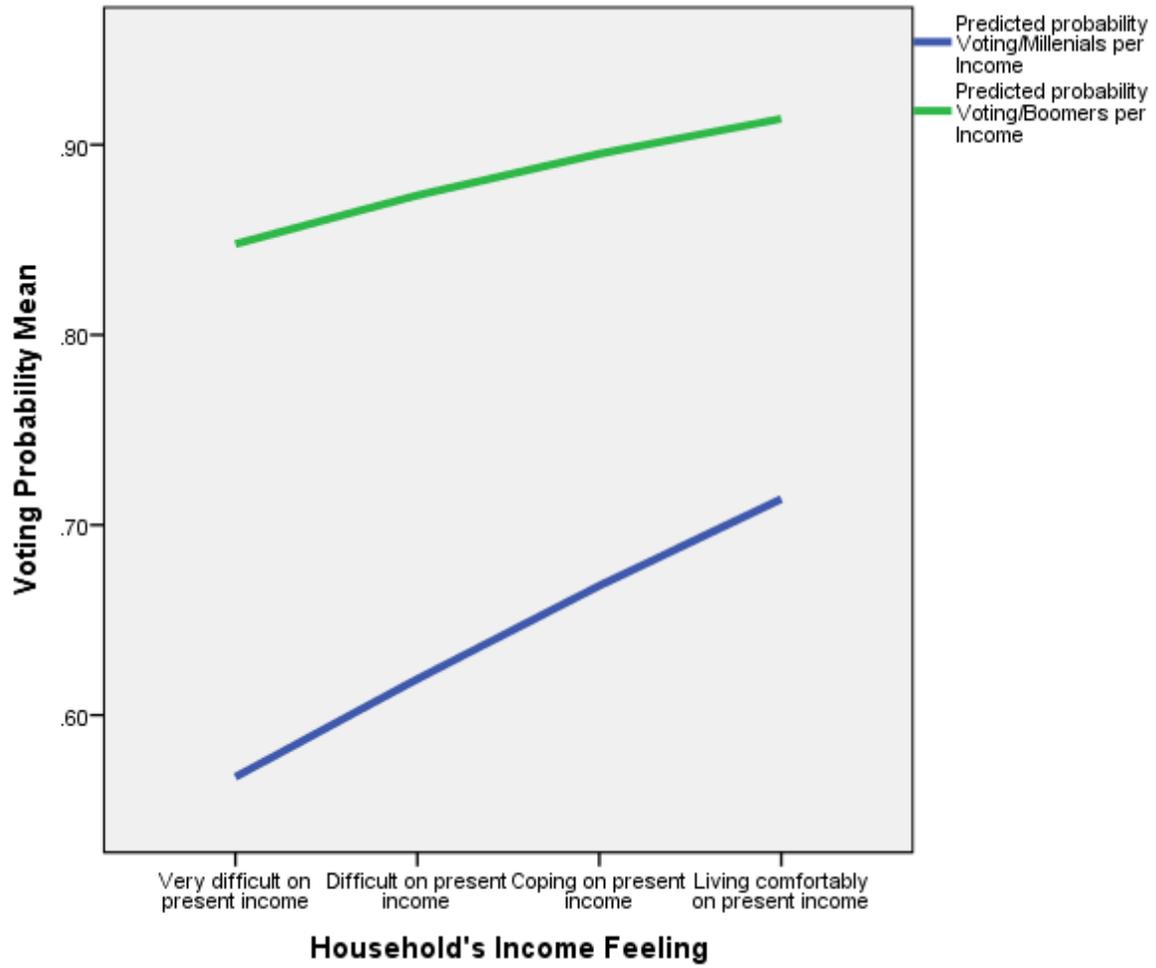
Graph A1: Voting Probabilities for Millennials and Baby Boomers with Internet Use As Predictor



Graph A2: Voting Probabilities for Millennials and Baby Boomers with Online Political Posting or Sharing As Predictor



Graph A3: Voting Probabilities for Millennials and Baby Boomers with Income Feeling As Predictor



Graph A4: Voting Probabilities for Millennials and Baby Boomers with Education As Predictor

