

Millennial Attitudes Towards Digital Voting:
An Analysis of Interest and Concerns Regarding Digital Voting
Technologies Among Students at American University

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Executive Summary

This purpose of this research was to determine awareness, interest and concerns among millennials about digital voting technologies and the issues therein. Previous research showed that millennials will be active in the 2016 election yet, in spite of this, this demographic faces challenges getting to the polls and voting. For example, living outside of their registered home state, the need to get an absentee ballot and other accessibility issues are formidable barriers to casting a vote. To note, when this report speaks about “millennials,” it is referring to the sample of American University students that participated in the research. This sample was used because they typically are out of state students who fall within the millennial age range of age 18 to 34 (Fry, 2015), they are politically active and the researchers are also American University students.

Through a detailed survey seeking qualitative and quantitative data from the participants, this report generated three significant findings.

- A majority of American University students are registered to vote, yet nearly 50 percent of those people felt digital voting technologies are unsafe.
- American University students who had no prior knowledge of digital voting technologies did not feel that they were safe to use.
- Liberal students on American University’s campus had a higher propensity to say they would use digital voting technologies than their conservative peers.

While these findings are representative of the American University sample who participated in the survey, this information could be skewed when referring to the entire American “millennial” demographic.

Based on these findings, the researchers developed several recommendations.

- Maintaining transparency surrounding the communication and implementation of digital voting technology is key to keeping millennials engaged and willing to vote.
- Educate millennials about the benefits and practicality of digital voting technology and fill any knowledge gaps in that demographic related to its use.
- Identify and establish relevant partnerships to register millennials to vote and ultimately use the digital voting technologies.

Introduction and Background Information

The Open Source Elections Technology Foundation (OSET Foundation) was founded in November 2006 in California. OSET works tirelessly to foster the creation of open-source and innovative solutions that make the process of voting easy, transparent and accessible (OSET Foundation). One of the objectives of the organization is to have several deliverables stemming from their key initiatives available ahead of the upcoming 2016 Presidential Election (Trust The Vote Project). The OSET Foundation's first and in-depth initiative is the TrustTheVote™ Project which encourages people to sign on as developers to create voting technologies, lead outreach efforts and donate. A report by the Presidential Commission on Election Administration in January 2014 praised the innovation of a tool created by The OSET Foundation (TechPresident) by stating, "... the "widget" available on the website highlights the way that voter information can be entered by a user in one setting and, through a simple platform, seamlessly integrated with a state's registration list" (Bauer, et. al. 27).

In 2012, Edison Research's National Exit Poll, reported by The Huffington Post, found that 19 percent of voters in the presidential election were between ages 18 to 29 (Kingkade). Millennials are expected to be a large demographic for the upcoming 2016 election as well. It is not always easy for young people to get out and vote on election day for various reasons. Many are students on college campuses who are living in different cities or states from their home residences, which requires them to apply for an absentee ballot. This problem could be solved through digital voting technologies, like the ones that the OSET Foundation are helping to develop. The OSET Foundation is interested in conducting research about their electronic voting initiatives and technologies to gauge levels of awareness, willingness or interest in using voting technologies and potential concerns that voters may have. Another aim of the research is to determine which features or information the students would be looking for if they were to use an application developed by OSET. American University students were selected as the target group for this research project for three reasons.

- i. They are generally out of state students without the ability to vote locally who rely on out-of-state ballots.
- ii. This sample was selected out of convenience as the researchers are also American University students.
- iii. American University consistently has been ranked as having the most politically active students, with AU being ranked "No. 1" by the Princeton Review in 2010 (Unger).

The research questions that were developed out of this preliminary information are as follows:

- i. What is the level of awareness among students on American University's campus of digital voting technology?
- ii. Are students on American University's campus interested in using digital voting technology?
- iii. What are the concerns among American University students regarding digital voting technology?

Methods

In order to address our research questions, we chose to gather data through an online questionnaire. We used Qualtrics to design and host our survey. The survey consisted of 17 questions total although, depending on participants' answers, they did not have to answer all of the questions. The questionnaire in its entirety is attached to this report and can be found in Appendix 1. Our survey aimed to determine whether students at American University would be interested in using digital voting technologies. We asked them whether they had heard of these technologies, if they would be interested in using them, if they had any concerns about them and about their political affiliations and their demographics. There were different types of questions used in our survey, but it was mostly comprised of multiple choice questions. We used Likert scales to determine how likely our respondents would be to take certain actions. We also used a scale of zero to 100 to allow them to express concerns about digital voting. Finally, we used an open ended question to ask respondents to explain why if they said that they were undecided or not planning to vote in the 2016 presidential election.

We distributed the survey primarily through Facebook, as we were trying to get responses from American University students. We recruited participants by posting the survey in groups or on our personal timelines. In addition, we sent the survey to individuals and asked them personally to participate. Once we felt we had enough respondents, we analyzed the data using SPSS.

Overall, we had 62 respondents that completed the entire survey. Our respondents were 66 percent female and 34 percent male. They represent 19 states across the country, with a majority from the east and west coast. Their ages range from 18 to 22 years old. 43 percent of our respondents are 18, 11 percent are 19, 15 percent are 20, 28 percent are 21 and 2 percent are 22. The age range suggests that we were able to attract students from all years in school to take part in our survey. Politically, 2 percent reported being very conservative, 8 percent conservative, 21 percent moderate, 48 percent liberal and 21 percent very liberal. They can be considered fairly politically active, as 97 percent of respondents said they were planning to vote in the 2016 presidential election (Figure 1). Graphic breakdowns of the demographic information about our participants can be seen in Figures 2 and 3.

Are you planning to vote in the 2016 presidential election?

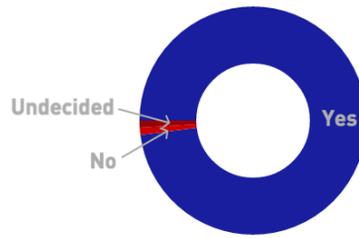
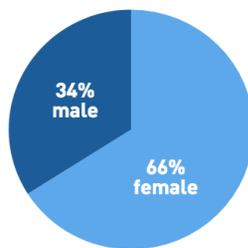


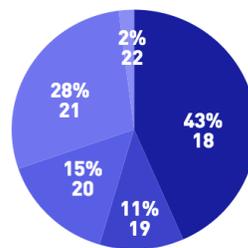
Figure 1

Demographics of Survey Respondents

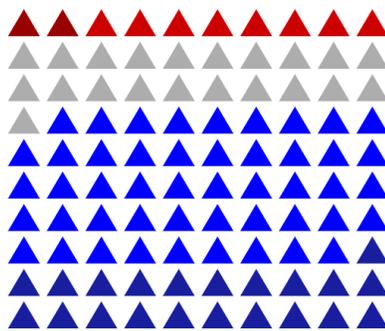
Gender



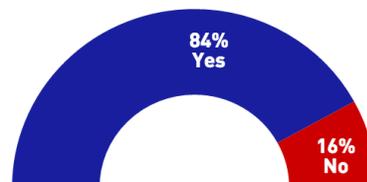
Age



Political Identity



Are you registered to vote in the United States?



2% Very Conservative
8% Conservative
21% Moderate
48% Liberal
21% Very Liberal

Figure 2

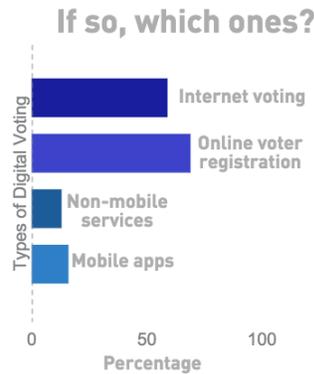


Figure 5

Interest in Digital Voting Technologies

When asked if they would use a technology that would allow them to vote electronically, more than 50 percent said they were either “likely” or “very likely” to use it (Figure 6). This finding addresses our research question about whether American University students would be interested in using digital voting technologies.

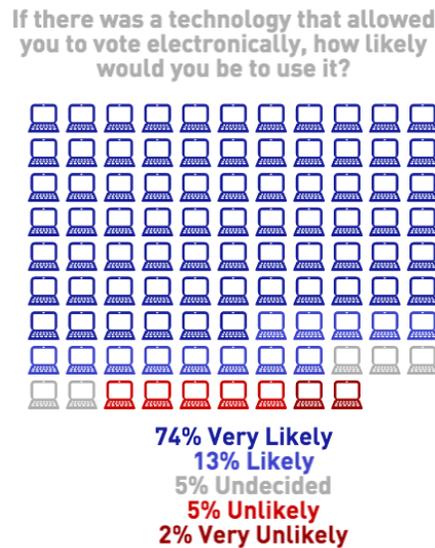


Figure 6

The majority of our respondents said they were either “very likely” or “likely” to use a mobile phone app to register to vote, vote, research candidates/issues of an election, find information about/directions to your polling place, confirm that you are still registered to vote, find out wait

times at your polling place or preview your ballot and record your selections. A small amount of our respondents said they were “very unlikely” or “unlikely” to use a mobile phone app to do any of the previously listed actions. A more detailed breakdown of this question is available in Figures 7a and 7b.

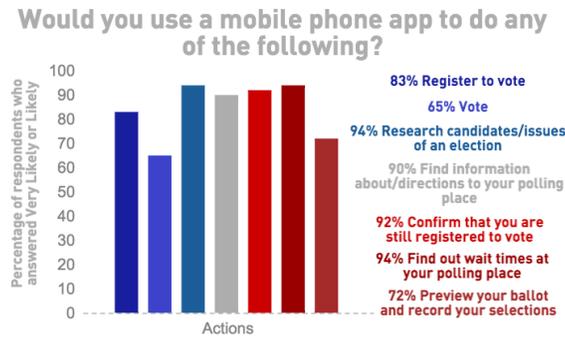


Figure 7a

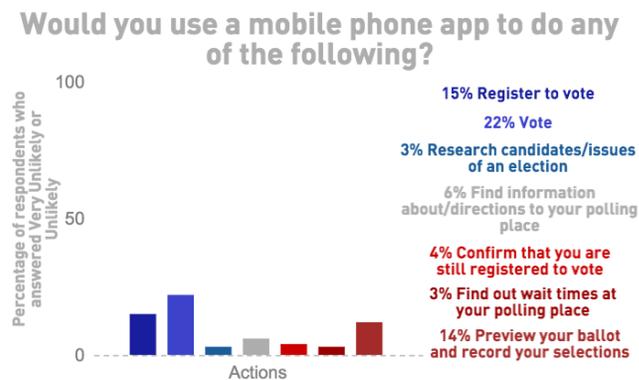


Figure 7b

However, when asked whether they thought digital voting technology is safe, more than half of our respondents answered “no” (Figure 8). This is an interesting observation, as so many of our participants expressed interest in using the technology. This result could potentially be due to the order of our questions, as we asked whether they would be interested in using them before asking about security concerns. More detail about our respondents’ concerns will be addressed when we discuss future research possibilities later in the report.

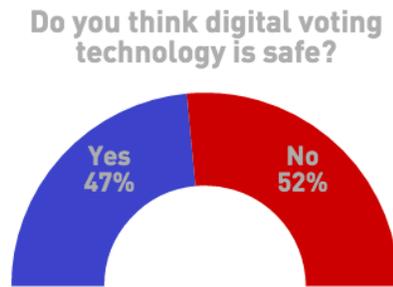


Figure 8

Due to the skew of American University students in general, we had many more liberal students take part in our survey, which may have affected our results. That being said, we found that more liberal students said they were “very likely” or “likely” to use digital voting technologies (Figure 9). Since our sample is skewed we cannot draw concrete conclusions about political affiliation and the interest in using digital voting technologies, yet the cross-tabulation is representative of the campus population and its tendencies.

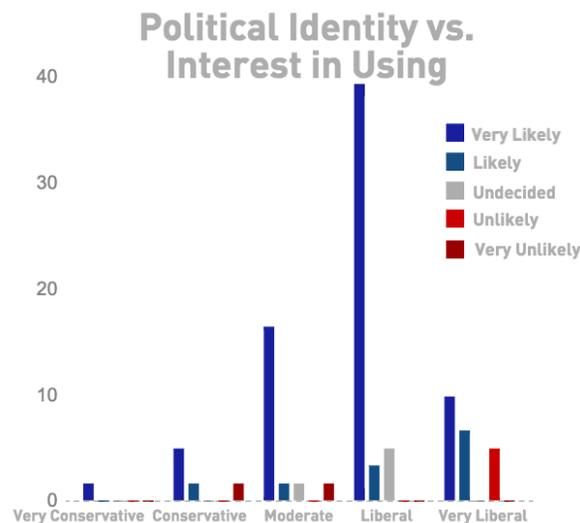


Figure 9

Concerns Regarding Digital Voting Technologies

As previously mentioned, a large portion of our respondents said that they do not consider digital voting technologies to be safe. We asked our respondents about certain scenarios in order to fully understand what types of concerns they had about the technology. We asked each of our respondents to rank each of their concerns on a scale of one to 100. From there, we computed the average for all of the scenarios to get a sense of which concerns were most important to our respondents. We found that they were most concerned about the technology being compromised

resulting in their personal information being stolen, the election being rigged, voting from a hacked PC, a malicious proxy interfering with or intercepting communication with the digital server and people operating the technology could tamper with the voting data. The concerns with lower averages included being worried their vote would not count and paperless voting machines making errors in recording votes (Figure 10).

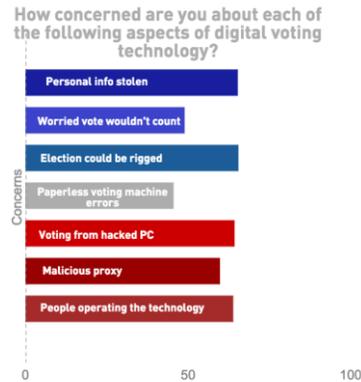


Figure 10

We also looked for a potential relationship between those who have heard of the technologies before taking our survey and their perceptions of the safety of electronic voting through the use of cross-tabulations. Of those who had previously heard of the technologies, our results showed that 24 percent believed they were safe, while 21 percent did not think so. Among those who had not heard of the technologies before our survey, 22 percent thought they were safe and nearly 32 percent did not (Figure 11). In the case of our sample, we found that those who had not previously heard of the technologies were more likely to perceive them as not being safe.

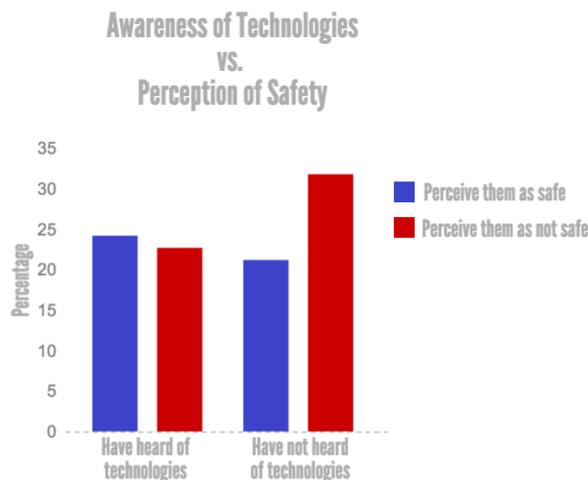


Figure 11

Another relationship that we examined through cross-tabulations was between students who were registered to vote and their perceptions of the safety of electronic voting. American University is an atypical campus as a majority of the students are registered to vote, so this may have affected our results. Of those students in our sample, 84 percent were registered to vote, while 16 percent were not (Figure 12). We found that around 38 percent of those who are registered perceive the technologies to be safe, whereas nearly 46 percent felt otherwise (Figure 13). It is not possible to draw concrete relationships about this relationship either, due to our skewed sample, but it may serve as an interesting topic for future research.

Are you registered to vote in the United States?

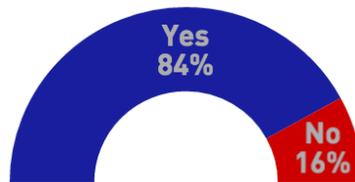


Figure 12

Registered to Vote vs. Perception of Safety

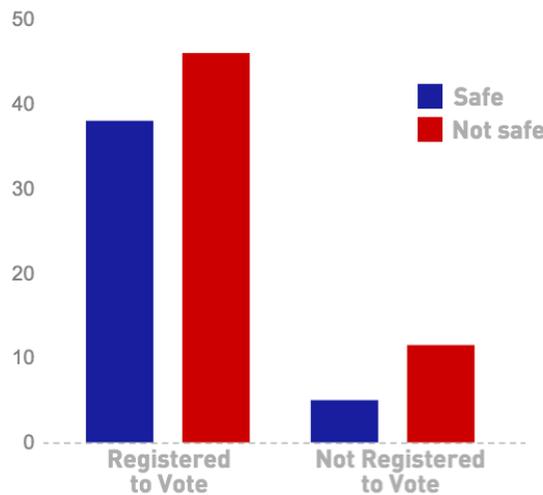


Figure 13

Recommendations

1. Be transparent about security issues.

Our findings show that American University students are aware of concerns related to digital voting technologies. Because of this, it is important to be as transparent as possible about potential issues that could occur with the technology. It is equally important to communicate to potential users the steps that the foundation is taking to lessen the risk of any negative effects. In addition, providing a list of best practices when using the technology to mitigate the potential of personal information being stolen would be useful. The trust in the voting technologies could be increased through addressing the security concerns that our respondents expressed in our survey.

2. Communicate with American University students who said they were interested in using it, but had not heard of it previously.

Our findings revealed that more students in our sample had not heard of digital voting technologies than had heard of them. However, after receiving information about the technologies and their uses, many of our respondents said they would be interested in using them. We recommend addressing this problem of lack of awareness among American University students. Since it is known as one of the most politically active campuses in the country, it makes it an appealing market for electronic voting. If more people knew about it, our results show that they would be interested in trying it.

3. Identify partnerships for voter registration through application integration as a marketable use for digital voting applications.

One of the major areas of interest among students sampled was to use digital voting technologies for voter registration. While digital voting was also an area of interest, the logistics behind such technology make future development towards it expensive and problematic. However, voter registration is more easily accessible. Voter registration drives are regularly done on college campuses around the nation, and it would be a reasonable addition to add digital voting technologies to such efforts. College political groups are an ideal partner for outreach because of their active role in voter registration on college campuses as well as a tech savviness from being younger. Peer to peer outreach is the most effective means of spreading interest and awareness, and as such college political groups are an ideal vector.

Further Research

The research conducted is limited based on a sole focus towards students at American University due to convenience sampling. Respondents all fall between 18 and 22 years old and 66 percent female to 34 percent male. While fairly indicative of the population of American University, these demographics are not necessarily reflective of the larger college aged population or any larger demographic groups. Additionally, American University is a highly political campus. The student body has been routinely ranked as one of the most politically active, which sets it apart from the general population. When examining political inclinations among college students this likely has a profound effect on results. Research using a larger sample size from a more broadly distributed demographic group, such as more than one college campus spread across a more diverse geographical area, would provide a more representational result.

Additional research into digital voting technology would also be effective by using a different order of questions. When answering the survey, respondents were asked if they had security concerns regarding digital voting technology prior to asking about perceptions of safety. This ordering is a source of potential error by creating bias towards identifying safety concerns by already framing the technology as having security issues. By changing this ordering further research would be able to avoid a confounding influence and produce more accurate findings. Similarly ensuring that questions are formatted in such a way as to allow cross tabulation and statistical analysis, by using the same formats, would allow a more accurate portrayal of any findings.

Finally, the use of mock versions of digital voting technology would allow for more accurate feedback on what features the target audience are likely to use. The majority of respondents were not familiar with digital voting technology, therefore they had no preconceptions of what this technology would look like or what features it would utilize. By giving people a model of what digital voting technology, respondents would be better able to accurately portray their feelings from an educated perspective.

Citations

About Our Mission & Organization. (n.d.). OSET Foundation. Retrieved from <http://www.osetfoundation.org/about>

Bauer, R. F., Ginsberg, B. L., Britton, B., Echevarria, J. Grayson, T., Lomax, L., Mayes, M. C., McGeehan, A., Patrick, T., Persily, N., Thomas, C. (2014, January). *The American Voting Experience: Report and Recommendations of the Presidential Commission on Election Administration*. Retrieved from <https://www.supportthevoter.gov/files/2014/01/Amer-Voting-Exper-final-draft-01-09-14-508.pdf>

Be Involved. (n.d.). Trust The Vote Project. Retrieved from <http://www.trustthevote.org/be-involved>

Fry, R. (2015, May 11). Millennials Surpass Gen Xers as the Largest Generation in U.S. Labor Force. *Pew Research Center – FactTank*. Retrieved from <http://www.pewresearch.org/fact-tank/2015/05/11/millennials-surpass-gen-xers-as-the-largest-generation-in-u-s-labor-force/>

Kingkade, T. (2012, November 7). Youth Vote 2012 Turnout: Exit Polls Show Greater Share Of Electorate Than In 2008. *The Huffington Post*. Retrieved from http://www.huffingtonpost.com/2012/11/07/youth-vote-2012-turnout-exit-polls_n_2086092.html

Neubauer, M. (2014, August 12). How the Open Source Election Technology Foundation is Remaking the Voter Experience. *TechPresident*. Retrieved from <http://techpresident.com/news/25233/election-technology-innovation-2014-training-ground-2016>

Unger, M. (2010, August 5). AU's Students Are the Most Politically Active. *American Today*. Retrieved from <http://www.american.edu/american.today/campus-news/20100805princeton-review-rankings.cfm>

Appendix 1

Thank you for participating in our survey! Please be honest when responding as your results will remain completely anonymous.

Our research team is investigating how much American University students know about digital voting technology, as well as the reasons and potential concerns associated with using this technology. The survey should take 5-10 minutes to complete.

To provide some background information, digital voting technology is an advanced and efficient means to facilitate voting and to assess voting data. Examples include smartphone applications that allow individuals to vote online or find out information about their polling place.

1. Have you heard of any digital voting technologies before taking part in this survey?
 - a. Yes
 - b. No
2. If so, which ones?
 - a. Internet voting
 - b. Online voter registration
 - c. Non-mobile services that allow you to download and mark your absentee ballot, track whether your absentee ballot arrived to its intended destination about being sent and view election results
 - d. Mobile services (like apps) that allow you to confirm that you are still registered to vote, find out wait times at your polling place, preview your ballot and record your selections
3. Are you planning to vote in the 2016 election?
 - a. Yes
 - b. No
 - c. Undecided
4. If no, please explain why.
5. If undecided, please explain why.
6. If yes, will you need an absentee ballot?
 - a. Yes
 - b. No
 - c. Maybe

7. If there was a technology that allowed you to vote electronically, how likely would you be to use it?
 - a. Very likely
 - b. Likely
 - c. Undecided
 - d. Unlikely
 - e. Very unlikely
8. Would you use a mobile phone app to do any of the following?
 - a. Register to vote
 - b. Research candidates/issues of an election
 - c. Find information about/directions to your polling place
 - d. Confirm that you are still registered to vote
 - e. Find out wait times at your polling place
 - f. Preview your ballot and record your selections
9. Do you think digital voting technology is safe?
 - a. Yes
 - b. No
10. How concerned are you about each of the following aspects of digital voting technology (0 meaning not concerned at all, 100 meaning extremely concerned)
 - a. The technology could be compromised and my personal information could be stolen (i.e. Social security number, phone number, etc.)
 - b. Worried that my vote wouldn't count
 - c. The election could be rigged
 - d. Paperless voting machines making errors in recording votes
 - e. Voting from a hacked PC
 - f. A malicious proxy is interfering/intercepting your communication with the digital server (Man-in-the-middle attack)
 - g. People operating the technology and computers could tamper with the voting data
11. What is your age as of your last birthday?
12. What is your gender identity?
 - a. Female
 - b. Male
 - c. Transgender
 - d. Not sure
 - e. Other (please specify)
13. How do you identify politically?
 - a. Very conservative
 - b. Conservative
 - c. Moderate
 - d. Liberal

- e. Very liberal
14. Are you registered to vote in the United States?
- a. Yes
 - b. No
15. Where are you registered to vote?
16. Have you ever voted? Please select all that apply.
- a. Yes, in a local election.
 - b. Yes, in a general election.
 - c. Yes, in a primary election.
 - d. No, I have never voted.
17. If you have voted, how did you cast your ballot?
- a. In-person on Election Day
 - b. In-person early voting
 - c. Vote-by-mail
 - d. Provisional voting
 - e. Other (please specify)