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ENG 150: Writing and Reasoning Foundations

10/06/2021

Electronic Voting and its implementation

**Part One**

We people ask me what is technology for me, I always say that is something that we use to create new experiences and improve those that we have. Voting has been an essential part of our history as humans. Many important things have been decided through voting, the leaders of countries, the creation of laws, and basically, the decisions that will affect us as individuals and as a society. We have seen voting to evolve throughout history, how in early societies only the leaders had the right to vote on events that would have repercussions on the lives of the majority of people. Then, as time was passing by, it was becoming available to a wider group of people, such as women, people of color, etc. Since technology has become a more essential part of our lives, we tend to combine it with our traditional habits, which is where e-voting (electronic voting) comes in.

Electronic voting is simply the method of voting being done with the aid of electronic devices or computers, and for years it is something that has been debated if it should be implemented or not. Before deciding if electronic voting is ready to be implemented in our society or not, we should go through its history, the advantages and consequences of using it, and how it could be implemented.

At the start of the decade of the 1960s, it's when the electronic voting system started being used. This started with the use of punched cards, which are electronic cards that contain holes in them to represent data, the most recognized use, was in the 1964 elections in the United States, where seven counties used this system to record their votes.

Currently, there are two countries which voting systems are completely electronic, these countries are Brazil and India, starting respectively in Brazil in 1996, and India since 1998. Electronic voting in these countries, and other countries where it is not used by the whole population, but on a large scale, such as Venezuela and the United States, are performed using DRE machines. DRE machines (direct-recording electronic voting machines) are machines where votes are gathered and saved in the machine itself, different from the punch card, where the votes were registered separately.

Most recently we have also seen in some countries in Europe, such as Germany, and Spain, where they use a hybrid system, where the individual uses a DRE machine to vote, and then the vote is printed, so it can be counted manually later.

Electronic voting is appealing to people, mostly because of the features that it contains. Votes are counted and saved faster, which saves time, and money. It also makes voting more accessible for those who suffer from any type of disability, such as blind people and others with mobility impairments. Some people like Michael Shamos state that electronic voting by far is more secure than our regular voting system, “Paper voting records have shown themselves for the past 250 years to be horribly insecure and easy to manipulate.” (1, Electronic voting, Stanford University) Costs will also decrease since fewer people are needed to do these tasks.

On the other hand, some people are concerned about the risks of using this voting system. With software becoming more and more complex, it is also vulnerable to attacks we do not even know about yet. Also, some people argue that since they do not know who wrote the software they are using, it is hard for them to trust the system. Ken Thompson, talking about the issue of trust once said, “To what extent should one trust a statement that a program is free of Trojan horses?” (Communications of the ACM, 762), meaning, how can we know if the software we are using is completely secure?

Is this technology ready to be implemented in our society? Do we fully understand the advantages and risks of this new technology? How can we know if we are ready to use this technology or not? Looking at the different points of view about it, and possible scenarios where the system is used may be the path to answer these questions.

**Part Two**

Electronic voting is a topic that can no longer go unnoticed in our days. We live in a era where technology is an essential part of our lives, and makes part of everything we do. With said, it is inevitable that something so essential like voting would not be affected by technology, and the way why we do it. As we discussed previously in our conversation, there are some aspects of this practice, such as trust, security, ease of use, which has created some discussions about the use of the technology. With some much information going around

There have been some discussions of whether we should be using this technology or not. There are some people who agree that this should be implemented immediately, stating that we are more than ready to use the technology, and that it should be implemented in our society, in the other hand, some people may argue that there are too many risks involved and it would not be worth it implementing this model.

Additionally, there are some people who also believe there are some risks implementing this technology, but at the same time we should overcome those challenges and take advantage of the technology, Todd McKinnon, expressing some insights about the 2020 USA election, mentioned the topic saying this, “While there are technical challenges to surmount, I believe if we can figure out how to put computers on our wrists and people up in space, we can find a way to securely cast a vote online.”, meaning that it is our responsibility to figure out how to use this technology correctly.

In order to form an opinion about the issue, we will look through these different points of views and arguments people have about it, and why they stand in favor of these so we can better understand the issue as a whole.

One of the less common views on electronic voting, therefore, not the least important, is the positive one. One of the reasons why people may adopt this practice, is because people like the sensation when they are using something modern and efficient. This is one of the many arguments in favor of electronic voting.

One of the reasons why this group supports this way of thinking, is that they argue that our current election system is not completely secure at all, in a survey conducted by Pew Research Center, they point in which extent people feel about the security of elections, here they say, “The public is not highly confident that election systems in the U.S. are secure from hacking and other technological threats. Currently, 45% of Americans say they are at least somewhat confident that U.S. election systems are secure, though just 8% say they are very confident in the security of these systems and 55% say they are not too (37%) or not at all (17%) confident that these systems are secure.”( Elections in America: concerns over security, divisions over expanding access to voting ,2), it is interesting to see how this considerable high percentage of people do not actually trust in a system that we have been using for an incredible amount of time.

Another reason that I briefly mentioned above, is efficiency. One of the most common complains about the current election system, is that votes take too much to be counted and presented unto the public, creating an unnecessary atmosphere of uncertainty and speculation. With electronic voting, this would not happen, votes will be saved and displayed after the voter makes his or her vote, this is saved electronically into the system, and displayed into the public. Basically, the result is instantly seen by those who are managing the elections and they are able to manage this data in a faster way, so we can know the results of the elections in a timely manner.

Something to point out is that electronic voting has the capability of reducing electoral fraud since balloon tampering is not available in this system. Wrapping up, with the arguments presented, this group states that we are more than ready to use this technology since there is outstanding evidence of why we should use it, but when we investigate further, we see not everyone shares this idea.

Secondly, we have a group of people who is extremely against electronic voting. This is due for a variety of reasons. The first one is software security. From common knowledge, we all know that when software is not well handled, it is susceptible to some kind of attacks, we all have heard histories of how some of our friends or colleagues have suffered hacks in their devices, or personal electronic possessions, such as email accounts, bank accounts or social media accounts in general. This will be the same for electronic devices that are used to handle votes in elections where electronic voting is implemented.

Another thing that may be an obstacle in implementing the technology, that for this group is not worth the effort of overcome it, is the financial cost. Since we already have been using paper ballots to hold our elections, it would be an unnecessary cost to make the transition to a new technology that is already known to have some risks, and also make an extra investment in something that it is almost guaranteed that will not work in the way that is expected.

Tying back to our first point, something that is likely to happen if this technology is implemented, is electoral fraud by manipulating the votes, or in other words, manipulating the data that is on machine. Different from paper ballots, that in order to change them you would need to destroy them or make fake ones, which is likely not to happen, since elections are supervised by teams on which people have trust, and it would be extremely difficult to make these kinds of frauds in the paper ballots. On the other hand, this kind of manipulation is having more possibilities to occur in the case of electronic voting, since data can be manipulated in a remote way, and the people who are supervising the event will not be even aware that this is happening in that case.

There is another group of people who have an important stand in this issue. This group of people accept the fact that there is a lot of difficulties around this issue, and they also think is it not likely that we are going to implement this technology, but we as humanity have the responsibility to figure out how we are going to do it. We have overcome numerous challenges in our lives, and this one will not be the last one we will face. With the correct research and the assistance of the right people, this technology can be a great help to us.

At the end, the most important thing is that we are well informed about the issue so we can form our own opinion, which will impact our way to look at the issue, and also will impact the way we see the problems that need to be overcome.

Works Cited

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