

Prospectus

**PowerShare: An Application to Enable Direct Interaction Between Politicians and
Constituencies**

(Technical Report)

Social Media and the Internet's Effect on Politics in the Age of Information

(STS Research Paper)

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Chris Lee

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Department of Computer Science

Signed: *Christopher Lee*

Approved: _____ Date _____

Prof. Rider Foley, Department of Science, Technology, and Society

Approved: *Ahmed Ibrahim* Date: 12/6/2019

Ahmed Ibrahim, Department of Computer Science

Introduction

The information age has affected a wide variety of fields in both positive and negative ways. One field that is not immune to these changes that the age of information has brought forth is in politics. Technology and social media has changed the political landscape drastically in ways ranging from providing another platform of communications to voters to employing detailed data analytics for candidates (Kreis and Mcregor, 2018). Additionally, the way candidates market themselves and campaign has drastically changed as well, creating the need for candidates to create social media campaigns to reach out to as many voters as possible (Anim et al., 2019). It is apparent that technology and social media has drastically affected the politics scene, so it is important to ask the question of how technology and social media has affected politics in the age of information.

In order to answer this question, both the technical and human aspect of the problem needs to be explored. For the technical side, the algorithms and the technology itself should be explored in order to explain the human aspect of the problem. As for the human side, the science, technology, and society aspect should be further explored. More specifically, the kind of STS framework that goes along with the problem at hand. For my technical topic, I have created an application with a team to help facilitate democracy through an application called Power Share. This app will show how technology can be used to promote democracy and display technology's potential effects on politics. As for my STS topic, I have decided to prove that technology has a profound effect on politics through showing that technology itself, such as social media, has political properties using the STS framework of technopolitics.

Technical Topic

In building the application, Power Share, I wanted to prove that technology does indeed impact politics through facilitating democracy and increasing communication with the voters and elected officials. Entman and Usher (2018) assert that social media and technology enhanced the democracy of politics as now people have greater access to the political elite. Before the advent of technology being heavily utilized in politics, elected officials mainly relied on the information given through layers such as political consultants instead of directly from the source, which would be the voters themselves. However, Power Share alleviates this problem through allowing voters to have direct access to communicate with elected officials.

In Power Share, there are two types of users: elected officials and voters. Voters belong to a certain community, which will be back checked through a voter registration database in order to verify that the user is indeed from that community. These voters can then create “goals” for their community, which would consist of a goal that a voter thinks is relevant to their community. For an example, a user could think that there are too many broken traffic lights in his or her community, so he or she could post a goal saying that we should have fixed traffic lights by x date. Then, voters in the community can vote on these goals if they see it fit. The elected official can then respond and address these goals, through either commenting on them or posting pictures of progress on a particular goal. This way, there is a mechanism for back and forth communication for the voter and the elected official. Additionally, there would also be an admin that facilitates and approves the goals that are submitted by the voters to make sure that the goals are legitimate.

This app will be built using a react native framework in order to support both android and IOS. My team chose the react native framework because this is arguably one of the best and most modern front end technologies for modern app development. Through using an excellent front end framework, the user interface and overall usability for this application can be enhanced so that it is accessible to as a wide reach of voters as possible. One of the turn offs for an application is a lack of usability and my team and I wants to make sure this will not be an issue. As for the back end, my team and I are using a firebase database to handle the authentication of users. Entman and Usher (2018) argue that one of the leading cause of the spread of misinformation is rogue actors, which are people that purposefully spread around false information. Having an authentication system that verifies that a user is indeed who he says he is through back checking through a voter registration database would greatly reduce the rogue actor effect in our application. In addition, Firebase acts as an excellent mobile framework to manage database contents so that information such as the goal content and the vote count can be efficiently stored.

Cardo asserts that social media and technology has led to “a more participatory and multidimensional flow of information between politicians and citizens” (Cardo, 2018 p.68), which in turn facilitates democracy. Power Share does this through providing a platform where voters can directly have their voice heard through posting goals and voting on them for elected officials to see. Elected officials can then in turn communicate with the voters through discussing these goals and providing pictures of the progress of the goals.

The app that I am developing shows that technological artifacts do indeed have political properties, and these artifacts can shape the way politics is played. My app has political properties because the app itself enhances democracy through allowing citizen's voice to be heard directly by an elected official and having a direct line of communication. This application displays the properties of how technology can greatly impact politics and how voter and elected official communicate.

STS Topic

The argument of social media and technology affecting politics is deeply connected with societal and human elements. The main STS framework used to show this relationship is technopolitics, which is the notion that technological artifacts themselves have political properties (Winner 1980). He defines this relationship between technological artifacts and politics as being strongly compatible with particular kinds of political relationships" (Winner, 1980 p.123). Social media and technology definitely has this effect with politics. For an example, Christensen and Garfias (2018) assert that social media and cellphone coverage increase the risk of protest by half. Accordingly, it is apparent that technology has a significant impact in the organization of people and politics, which leads to my belief that it is the technology itself that has political properties.

In addition to the main framework of technopolitics, the relationship between technology and politics also follows a technological determinism pattern as well. Technological determinism is defined as technology itself shaping society (Wyatt 2008). While technology has political properties, society is being shaped by these technological artifacts with political

properties. For an example, large social media companies are responsible for much of the data analytics gathered, how voters and elected officials communicate, and how politicians campaign (Kreiss and McGregor 2014). Through technology, the way politics works has been completely revolutionized. Now, politicians need to focus their strategy on engaging voters through technology in addition to the traditional methods such as rallying for support.

Social media initially started off as a way to connect with friends. However, through the changing social and environmental factors, social media has become a platform to do much more, such as providing a platform for politicians to campaign themselves. This is what Hughes (1987) calls development in technology. As a result of social media and technology growing at such a fast pace and becoming a dominant technology, it has taken on political properties that has drastically changed the landscape of politics. The fact that social media and the internet has become such a dominant force in the field of politics and our society in general somewhat disproves Pinch and Bijker's theory of the social construction of technology, which is the notion that "social groups direct nearly every aspect of technology" (Pinch and Bijker, 2008). It is the technology that defined the scene of politics now, not the other way around.

The fact that social media inherently has political properties means that it will affect many different stakeholders. One stakeholders are elected officials and politicians, and social media and technology drastically change the way they campaign themselves and the information on voter sentiment based on data analytics (Kreis and McGregor, 2018). Another stakeholder social media effects is the voters themselves, as now voters can directly communicate with the politicians and have more access to political information.

Because social media and technology has political properties, it should be our responsibility as a society to make sure that this technology is being used responsibly. Andrews (2006) argues that technology is affecting democracy, and that it is our responsibility as a society to keep the balance between technology and democracy in check. Through promoting technologies that facilitate democracy, society can reduce the possibility of tyranny and oppression. Social media has the political properties to spread democracy and facilitate it, so it is important to aggregate all of social media's effect on politics to see its value in society.

Research Questions and Methods

The main research question is how does social media and technology impact politics in the age of information? The methods I will employ to pursue this question is through surveys, interviews, and case studies. Firstly, I will use surveys in order to get as many responses as possible from both elected officials/politicians and voters. Firstly, I would send elected officials/politicians questionnaires on how they use social media to market themselves, and if they use any of the data analytics features such as sentiment analysis (Kreis and McGregor, 2018). Then, I would send out surveys to voters and ask questions about how social media has affected how they see candidates and how they communicate their values with candidates. These questions will not go as in depth as this is merely to gain a general understanding of the relationships between social media/ technology and politics.

After sending out surveys, I would conduct interviews for both politicians and voters. The interview questions will be similar to the survey questions, but it allows me to go more in

depth. I can ask follow up questions to the survey, and this would allow me to explore people's personal thoughts on the subject.

After conducting surveys and interviews, I would look at past events and case studies to look into how social media has affected technology. This would perhaps look at case studies in both the United States and other countries, and I could potentially gain some insight on statistics such as what percentage of candidates use data analytics tools or how has social media affected to outcome in elections. Through the analysis of those three areas (surveys, interviews, and case studies) I can gain a better understanding of the issue at hand and be able to make a valid conclusion on how exactly social media and technology affects politics in general.

Conclusion/Timeline and Expected outcomes

The question of how technology impacts politics is the problem that I will try to solve. Through the use of my technical deliverable, Power Share, I could potentially prove how such an application could facilitate democracy and promote political participation. Through my STS deliverable, people will be able to see the profound effects of technology and social media on politics during the age of information. I plan on finishing the technical deliverable by the end of the academic year. By then, a fully functioning android and iOS app will be presentable to our customer, and he can put it on the app store for real users to use. I plan on having the surveys and interviews done by the end of the academic year as well. Specifically, before March so that I can have plenty of time to analyze my findings and come up with a conclusion. The impact that

my research has could potentially show both the pros and cons of technology use in society,
and help society determine how it could use technology to enhance politics.

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