



2016-11-01

An E-Government Analysis of State Legislatures' Social Media Use

Karen Sue Connell
Brigham Young University

Follow this and additional works at: <https://scholarsarchive.byu.edu/etd>



Part of the [Communication Commons](#)

BYU ScholarsArchive Citation

Connell, Karen Sue, "An E-Government Analysis of State Legislatures' Social Media Use" (2016). *All Theses and Dissertations*. 6126.
<https://scholarsarchive.byu.edu/etd/6126>

This Thesis is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in All Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

An E-Government Analysis of State Legislatures' Social Media Use

Karen Sue Connell

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Arts

Kristoffer Boyle, Chair
Christopher Wilson
Mark Callister

School of Communications

Brigham Young University

Copyright © 2016 Karen Sue Connell

All Rights Reserved

ABSTRACT

An E-Government Analysis of State Legislatures' Social Media Use

Karen Sue Connell
School of Communications, BYU
Master of Arts

This study analyzes the use of social media by state legislative bodies, broken down by a combination of legislative body (House, Senate, or general legislature) and by party (Republican or Democrat). I analyzed Twitter and Facebook posts for each of these groups during the week of January 11-15, 2016, specifically looking for four improvements: transparency, policy making, public services, and knowledge management and cross-agency cooperation. The research questions are:

RQ1: Which social media platforms are state legislatures using?

RQ2: What improvements are the state legislatures using in their social media output?

RQ3: Is there a significant difference in the improvements presented on Facebook and Twitter?

The results revealed that 52.9% of 700 groups had created Twitter and Facebook accounts, with 55% of those accounts on Twitter. The analysis also showed that upcoming events are more common than expected on Twitter, and that posts asking for support on an issue are more common than expected on Facebook.

This study is important because it relates to voting trends of the 18-24 age group in the United States. An overwhelming majority of this age group uses social media, but this group has very low voting rates. If governmental bodies can utilize social media to communicate with this population, then it is possible that they would be better informed and more motivated to vote and be civically engaged.

Keywords: e-government, social media, political communication

TABLE OF CONTENTS

Chapter 1: Introduction.....	1
Chapter 2: Literature Review.....	4
Chapter 3: Method.....	21
Chapter 4: Results.....	27
Chapter 5: Discussion.....	36
Chapter 6: Conclusion.....	45
References.....	47
Appendix A.....	50

Chapter 1: Introduction

In a day when a tweet about the President's dog gets over 40,000 retweets, it is clear that effective political usage of social media requires competence, consistency, and an unprecedented amount of self-awareness. A politician's content will potentially be seen, read, and shared hundreds, perhaps thousands of times. A lack of online presence can be just as harmful as a bad one – if a politician falls in the forest, will anyone tweet? Essentially, if no one is talking about him, no one is listening to him either.



From Capitol Hill in Washington, D.C. to city councils everywhere, politicians abound in the United States. Social media is an increasingly prevalent form of communication. On the public relations side, some people dedicate their entire careers to successful utilization of this technology, while some organizations fail to properly integrate it into their long-term communication strategies.

Aside from social media, there are many other communication outlets for politicians to interact with their constituents. Online, politicians have the option to publish “blogs, archives, online newspapers, political websites, interactive and multimedia services” (di Gennaro & Dutton, 2006, 299). Offline, political sources identify a broad range of interactive resources, such as news releases and news conferences, office and party newsletters, letters to the editor, opinion editorials, posting flyers, radio and TV advertisements and public service announcements, public forums and meetings, district tours, special events, job fairs, advisory committees, providing

legislative tours, opinion polls and surveys, and district office business, including brochures and office hours (National Democratic Institute, 2008, 19-35). However, it is possible that the traditional offline media used for communication with constituents are no longer the most effective means for reaching this audience. According to the Kids Count Data Center (2014), there are over 30 million young adults aged 18-24 in the United States, which equals 13% of the overall population. Census data reveals that of this 18-24 age group, only 38% voted in the 2012 presidential election, down from 41.9% in 2004, and even further down from 1964, when 50.9% of adults age 18-24 voted in the presidential election (File, 2014). According to a 2014 Pew Internet Study, about 39% of adults use social media for political purposes. Furthermore, 79% of people age 18-24 have accounts on social networking sites, and 67% say that they are “politically active” on these sites. Decreased voting rates within this age group are disconcerting, so reaching them through the communication channels they use is critical to improving their civic involvement.

Tedesco (2007) conducted an experimental design study of 271 participants and found that exposure to highly interactive online features resulted in significant increases in political information processing and understanding. Participants in the highly interactive condition were also significantly more likely than those in the low-interactive condition to indicate that voting was an important behavior.

The increased prevalence of social networking sites, combined with the decreased voting turnout of young adults, indicates a lack of connection between governmental social media communication and young adult constituent-role communication. Worldwide, the United States is considered a leader in e-government (United Nations, 2014), but the disconnect with the youth vote could be resolved by reaching this group in their natural channel – on social media

platforms – to help improve and transform the future of e-government not only in the United States, but in the world. For these reasons, among others, it is becoming increasingly important to study social media as a medium for political communication.

The goal of this study is to assess whether state legislative bodies are utilizing social media to engage with constituents. However, I chose to focus on state legislative bodies, rather than federal groups, because the scope of individual politicians' social media accounts is unimaginably vast and constantly changing. This study will examine how state legislative groups use their official Twitter and Facebook accounts to interact with their constituents. By focusing on the official bodies, organizational social media literature may be more helpful and indicative of how legislative bodies should be using social media, specifically Facebook and Twitter. This study is relevant to modern political communication and will enhance the field because if legislative bodies adopted interactive social media practices consistent with these findings, combined with other means of reaching out to young adult voters in the state, it would potentially improve the educated voting turnout of those in the 18-24 age range.

Chapter 2: Literature Review

To establish an understanding of legislative social media usage, I will explore underlying concepts and areas of research. First, the importance of governmental transparency led to the development of e-government, so I will explain these two concepts in greater detail. Following these explorations, I will examine the invention and growth of social media (a channel for e-government) and Web 2.0 as separate concepts from political communications. Finally, I will provide Everett Rogers' diffusion of innovations theory as a platform for understanding the potential lack of adoption of new innovations in a governmental agency.

Governmental Transparency

A 2008 study found that the "Internet raises transparency to a new level by providing the means for those with information to share their knowledge with others" (Rawlins, 2008, 72). This study also cites Ann Florini (1998) of the Brookings Institute: "Secrecy means deliberately hiding your actions; transparency means deliberately revealing them" (50). This definition of transparency can be applied to businesses and governments alike, and creates a standard for sharing information.

Public relations is at the root of transparency in government, and John Bertot (2010) postulates that information and communication technologies (ICTs) can be used to increase openness and decrease corruption in government. He cites a 2006 study of 14 countries that found that citizens in those countries with dedicated transparency laws (that are designed to increase openness) who requested information received it 33% of the time, while citizens in countries without these laws received requested information only 12% of the time (Open Society Justice Initiative, 2006, 11). In order to mobilize this political openness, he cites a book by

Suzanne Piotrowski that identifies four channels of governmental transparency (Bertot, 2010, 264):

1. proactive dissemination by the government
2. release of requested materials by the government
3. public meetings
4. leaks from whistleblowers

Proactive dissemination by the government occurs through “communications from public affairs offices, formal publications, releasing historical documents to depository libraries, or, recently, the most common way, posting documents on websites” (Piotrowski, 2007, 91). This is also achieved with electronic reading rooms and agency websites, such as Firstgov.gov (94). Release of requested materials by the government happens when documents are requested by a citizen “citing a specific law, such as requests made to a federal agency invoking the Freedom of Information Act or requests sent to a local government referencing the relevant state open records act” (91). Public meetings refer to those required by the Federal Advisory Committee Act. Finally, leaks from whistleblowers are the most informal channel for releasing information. Whistleblowers “see some administrative wrongdoing and circumvent formal processes to publicize an issue” (91). Generally, the leaked material is provided confidentially to media outlets, and may be illegal. One of the most prominent examples of whistleblower leaks is the Pentagon Papers.

These channels do not always avoid the tension between informing the public, “which is a prerequisite for effective democracy,” and the personal privacy of individual citizens. For example, convicted sex offenders are required to have their home address and photos posted online (Piotrowski, 2007, 92). Federal and state court records are searchable online.

Whistleblowers' identities are revealed, as in the case of the Valerie Plame, wife of former U.S. ambassador Joseph Wilson, who was identified as a CIA agent (93). However, governmental transparency is seen as the equivalent of open government (10), and is valued as a “central aspect of participation” along with the free exchange of information. This was the purpose of the Freedom of Information Act.

Returning to Bertot, he also writes that many governments around the world can use ICTs “as a means to promote efficiency and transparency at the same time.” For example, by making records publicly accessible online, it increases the processing speed and accountability of governments, thereby decreasing the opportunity for bribes.

One of the many benefits of digital government is the potential not only for mass dissemination, but also for mass production and collaboration with citizens. Dennis Linders (2012) refers to this as “citizen coproduction” and calls it an increasingly viable and prevalent reality. Citizen coproduction makes it possible to “discover and attract members with shared interests; exchange information; make group decisions at a larger scale; integrate individual contributions; supervise a group with less need for hierarchy; and manage group logistics due to elimination of time and space constraints” (Linders, 2012, 447). Many other labels are applied to this concept, such as crowdsourcing, citizen sourcing, collaborative government, Wiki government, open government, do-it-yourself government, and government as a platform. Focusing on three of these labels, Linders creates categories that can be used to standardize research on this topic:

1. Citizen sourcing (citizens to government)
2. Government as a platform (government to citizen)
3. Do-it-yourself government (citizen to citizen)

The success of each of these categories involves not only the government allowing the input of the public and utilizing ICTs, but also involves the public actively trying to improve its government by helping it to become more responsive and effective. Citizens can “influence direction and outcomes, improve the government’s situational awareness, and ... help execute government services on a day-to-day basis” (Linders, 2012, 447). Achieved through planning and design, daily execution, and careful monitoring and evaluation, these advances can improve governmental transparency not only with regard to the government’s output, but also to the public’s perception of said output.

Citizen sourcing, which is C2G in terms of e-government, may build on town halls, letter-writing campaigns, volunteering, and office visits by engaging in eRulemaking, IdeaScale, eDemocracy party, CrisisCommons, Challenge.gov, and FixMyStreet systems. Government as platform, or G2C, may consist of crime mapping and data mining in place of brochures and flyers. Finally, do-it-yourself government (C2C) may manifest itself as utilizing virtual worlds in place of a neighborhood council. Traditionally, C2C monitoring occurs through word of mouth. However, services such as Yelp and NHS Choice, in addition to basic social media communication, may help the transition to a digital community monitoring system (Linders 2012, 450).

E-Government

E-government consists of the digital interactions between a citizen and their government, as well as other digital governmental inter- and intra-communications, as shown below (United Nations, 2014, 2):

- G2G (government to governments)
- G2C (government to citizens/consumers)

- G2E (government to employees)
- G2B (government to businesses)

The United Nations regularly conducts surveys that rank countries' governments based on the E-Government Development Index (EGDI), which is determined using online service index, telecommunication infrastructure index, and human capital index (United Nations, 2014, 14).

Tables 1.1 and 1.2 show the difference between the top seven 2012 and 2014 rankings. The United States has an e-government development index (EGDI) ranking of .8748, which is considered "very high."

Table 1.1

2012 Rank & EGDI

1	Republic of Korea	.9283
2	Netherlands	.9125
3	United Kingdom	.8960
4	Denmark	.8889
5	United States of America	.8687
6	France	.8635
7	Sweden	.8599

(United Nations, 2012)

Table 1.2

2014 Rank & EGDI

1	Republic of Korea	.9462
2	Australia	.9103
3	Singapore	.9076
4	France	.8938
5	Netherlands	.8897
6	Japan	.8874
7	United States of America	.8748

(United Nations, 2014)

Although the United States' score increased by .0061, each country ranked higher in 2014 had a score of at least .0187 higher than the US' 2012 score. For example, Japan increased its own score by .086, showing significant development and growth and jumping from 18th to 6th ranked in the world. Even Korea, the top-ranked country for both years, increased its score by .0179.

According to the survey, "since 2012, the United States of America has taken important steps to drive technology towards sustainable growth and quality jobs through policies that

support innovation and education. It has also customized its digital agenda to fit the new tendencies and needs of its citizens, such as cloud computing, smart mobile devices, tablets and high speed networks” (United Nations, 2014).

In contrast, Korea and Japan “in general rank higher than the world average for various reasons such as e-government leadership, inclusive e-participation policies, broad-ranging e-services and extensive open government data portals” (United Nations, 2014, 27). Specifically, these countries have highly developed infrastructures, economies, and high IT literacy rates. For example, Japan enacted a reform strategy to reduce the percentage of paperwork in their government by moving everything online. They also implemented communication strategies to inform the public about e-services offered.

On the other hand, Hong Kong has found that limiting social media interaction is better for their government. Rather than creating Facebook “pages,” which can be liked by any number of users, their government officials have created personal accounts which are limited to 5,000 “screened friends” which allows them to “avoid troublesome comments”; this also limits constituent interaction (Patterson, 2016, para. 2).

In summary, then, the future of e-government in the United States is promising, but must be inspired by these other technological advances if it is to be successful.

Social Media

Social media is defined as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content” (Kaplan and Haenlein, 2010, 60). Social media became possible when, in 1991, Tim Berners-Lee invented the World Wide Web, which allowed for the formation of online communities (van Dijck, 2013, 5). As it evolved into Web 2.0, greater

technologies allowed for interactive networked communication channels, which became “two-way vehicles for networked sociality” (5). Because I focus on Facebook and Twitter in this study, the history of these two platforms is more relevant than others.

Facebook is unique because its “owners and users have been very outspoken in articulating norms for online social networking. The values of openness and connectedness are quintessentially reflected in the word favored most by Facebook’s executives: *sharing*” (van Dijck, 2013, 39). One of Facebook’s most prominent selling points since its creation in 2004 has been its rapidly expanding user base, in terms of both numbers and global diversity. The principal benefits for users are “first, to get and stay connected and, second, to become (well) connected” (van Dijck, 2013, 44). One reason Facebook may have been so successful is because it “represents a cultural battle to establish a new normative order for online socializing and communication” (van Dijck, 2013, 56). This norm is so widespread because “its buttons have been effectively exported to other platforms, promoted by the frictionless sharing stratagem” (56). However, beyond the cultural norms associated with this new platform, it has also been accepted into so many people’s everyday routines. “What used to be informal social activities in the private sphere – friends hanging out together and exchanging ideas on what they like – have become algorithmically mediated interactions in the corporate sphere” (van Dijck, 2013, 56). Facebook represents an ideology that has been deeply accepted and ingrained into modern culture, which was Mark Zuckerberg’s goal: to make the world a more connected and transparent place.

Twitter first appeared on the scene in 2006 as the first example of “microblogging”, and shortly thereafter took off, attracting nearly 500 million monthly registered users (van Dijck, 2013, 59). Its cofounder, Jack Dorsey, had a specific vision for Twitter to be a utility: “I think

Twitter is a success for us when people stop talking about it, when we stop doing these panels and people just use it as a utility, use it like electricity. It fades into the background, something that's just a part of communication. We put it on the same level as any communication device. So, e-mail, SMS, phone. That's where we want to be" (McCarthy, 2009).

Social media has shown "early promise as a tool for transparency and openness" (Bertot, 2010, p. 268), and its ease of use and low cost makes it another prime vehicle for improving e-government practices. The basic characteristics of social media are user-generated social content, social networking, collaboration, and cross-platform data sharing. Chun and Reyes (2012) explain that these "encourage government agencies to apply social media to achieve the Open Government Directive of the U.S. government, whose three major mandates are transparency, participation and collaboration" (441).

Because people are relying on social media more each year, the capabilities to facilitate both interpersonal and group interactions can provide opportunities for government leaders "to inform and communicate with citizens" (Kavanaugh, et al., 2012, 483). In many instances, however, "the public relations person for various government agencies was typically not familiar with nor comfortable with social media" (483). This limitation presents a difficulty for integration, but can easily be solved with training and exposure. Otherwise, some agencies use interns, who are young adults and familiar with social media, to manage their various accounts.

A recent study by the University at Albany, SUNY identified eight essential elements of governmental social media design (Hrdinová, Helbig, & Peters, 2010, 5):

1. Employee access
2. Account management
3. Acceptable use

4. Employee conduct
5. Content
6. Security
7. Legal issues
8. Citizen conduct

These elements were determined based on existing guidelines and policies within several agencies already using, or considering using, social media tools. Although originally used privately, social media's potential for simplified communication led to its expansion into the workplace. However, expanding it to the government is more complex because it involves using social media in a different way. Employees of government agencies use social media for official agency interests, professional interests, and personal interests. Citizens use social media to gather information and give feedback.

When designing a social media policy, certain strategies should be employed to ensure successful and efficient use. First, determine goals and objectives for using social media tools. Second, bring together a multi-functional team that includes members of the communication, legal, technology, human resources, and program units to collaborate on policy. Third, identifying existing agency policies that also apply to the use of social media. Fourth, discuss any conflicts or inconsistencies between proposed and existing policies and procedures. These strategies allow for maximum collaboration and integration, and inter-departmental use of social media is more powerful than its use in one department (Hrdinová, Helbig, & Peters, 2010).

As noted by David Landsbergen (2010), social media is experiencing incredible growth because it supports social needs. It supports two-way communication rather than one-way broadcasts. However, while there is some risk associated with implementing social media poorly,

“there is also risk in not doing it, or even doing it too slowly” (Landsbergen, 2010, 135). Social media, successfully used, is essential to the development of a government because it establishes trust, or “social capital.” This involves obligations and expectations, important information channels which can sustain networks and organizations, and the social norms of a community. If the public is on social media and a government is not, then social capital becomes much more difficult to establish and maintain. Similarly, many users and constituents recognize social media as a tool for staying involved civically. As mentioned previously, according to a 2014 Pew Internet Study, about 39% of adults use social media for political purposes. Furthermore, 79% of people age 18-24 have accounts on social networking sites, and 67% say that they are “politically active” on these sites.

Web 2.0

Bonsón, Torres, Royo, and Flores (2012) identified Web 2.0 technologies and utilization features, including content syndication, widgets, sharing and bookmarking, and mashups. Under social media platforms, they identify blogs, wikis, and social networks as online locations to be utilized. This study will focus on social networks. Bonsón et. al. claim that “the tools and practices of Web 2.0 can help improve policy making and service delivery by enriching government interactions with external stakeholders and enhancing internal knowledge management” and measure the impact of these improvements with the following improvements:

1. Improvement of public sector transparency (“bring the public sector agenda and activities closer to citizens and provide news and information in the platforms preferred by citizens.”)
2. Improvement of policy making (“new forms of participation, enabled by the use of [information and communication technologies], which improve social consciousness

and citizen engagement...facilitate dialog, creativity, collaboration, and participation...[by] increasing interest in politics and citizen participation; expanding the number and types of participants; generating support for a position/project; and creating identity and trust.”)

3. Improvement of public services (“more innovative mechanisms for service delivery...the same way that companies share product design tasks with potential customers.”)
4. Improvement of knowledge management and cross-agency cooperation (“using specific groups in the context of these platforms”)

Diffusion of Innovations

Diffusion of innovations is a theory originally postulated by Everett Rogers in 1963. It has many applications in the fields of technology and mass communications. The theory consists of several elements. At its core, diffusion is “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 1995, 5). This process involves (1) an innovation, (2) an individual or other unit of adoption that has knowledge of the innovation or experience with using it, (3) another individual or other unit that does not yet have experience with the innovation, and (4) a communication channel connecting the two units” (Rogers, 1995, 18). Diffusion embodies social change, “defined as the process by which alteration occurs in the structure and function of a social system. When new ideas are invented, diffused, and are adopted or rejected, leading to certain consequences, social change occurs” (Rogers, 1995, 6). From a non-consumer perspective, a very common problem is how to speed up the rate of diffusion for a new idea, or innovation (1).

Diffusion itself is unique, because the messages are always about a new idea. “This newness of the idea in the message content gives diffusion its special character. The newness means that some degree of uncertainty is involved in diffusion” (Rogers, 1995, 6). Uncertainty is the extent to which alternatives are perceived in regards to an event or trend and the probability of those alternatives. “Uncertainty implies a lack of predictability, of structure, of information. In fact, information is a means of reducing uncertainty” (6). Technological innovation, or any other type of innovation, “embodies information and thus reduces uncertainty about cause-effect relationships in problem solving” (6).

Innovation in and of itself is a unique phenomenon that can be characterized by six qualities. First, relative advantage is the “degree to which an innovation is perceived as better than the idea it supersedes” (Rogers, 1995, 15). Second, compatibility is the consistency of an innovation with “existing values, past experiences, and needs of potential adopters” (15). Third, complexity is how difficult the innovation is to understand and use. Fourth, trialability is the extent to which “an innovation may be experimented with on a limited basis” (16). Finally, observability is how visible the results of innovation are to others.

There are four main elements to diffusion of innovations. First, innovation must take place. Innovation is “an idea, practice, or object that is perceived as new by an individual or other unit of adoption” (Rogers, 1995, 11). Perceived newness of an idea will determine the general reaction to it. There are three main stages of innovation: Innovation I, Innovation II, and Innovation III. Each of these is seeded by early adopters, and capped off by late adopters. Innovation I is characterized by relatively rapid adoption, and Innovation III is relatively slow. At around 10-25% adoption, “interpersonal networks become activated so that a critical mass of adopters [begin] using an innovation” (12). This element is closely related to the idea of “the

tipping point” as Malcom Gladwell explained in his book of the same title. He writes that “the Tipping Point is the moment of critical mass, the threshold, the boiling point” (Gladwell, 2006, 12). His classic example of Hush Puppies shoes illustrates the idea of early adopters. A handful of teenagers in the East Village started wearing Hush Puppies as rare vintage finds, but then the shoes caught on. Over the course of a year, the company went from selling 30,000 pairs of shoes to 430,000 pairs, and it only increased after that. Diffusion of innovations would indicate that this moment of critical mass for Hush Puppies occurred when between 10-25% of people started wearing them, or “adopting” them.

The second element of diffusion is communication channels, and in diffusion, this means “the information exchange through which one individual communicates a new idea” (Rogers, 1995, 18). The most rapid and efficient channels are mass media, which are “all those means of transmitting messages that involve a mass medium, such as radio, television, newspapers, and so on, which enable a source of one or a few individuals to reach an audience of many” (18). There also exist interpersonal channels, which are face-to-face exchanges. At its heart, diffusion is a very social process, so channels are important since ideas cannot be shared without someone to share them with. The third element of diffusion is time (Rogers, 1995, 20). The inclusion of the time dimension in diffusion research is a strength of the theory, compared to other communication theories. Time is involved in three ways. First, the innovation-decision process, which is how an individual passes from first knowledge of an idea or innovation, through attitude formation, to the decision to adopt or reject, and finally to implementation and confirmation of the decision (20). This process is conceptualized through five steps: “(1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation” (20). This entire process is an “information-seeking and information-processing activity” that allows an individual to reduce

uncertainty about an innovation. The second involvement of time regards the relative earliness or lateness with which an innovation is adopted compared to other members within a system. This process is also outlined in Figure 1.

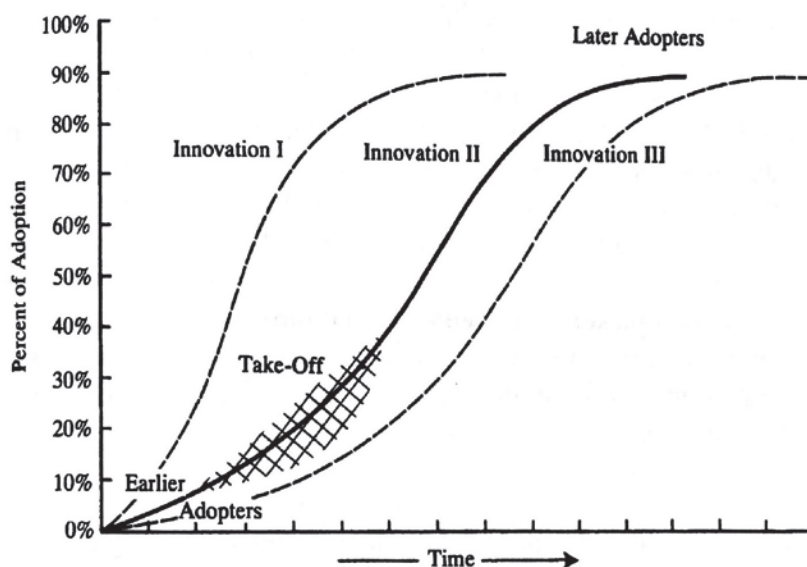


Figure 1. Rogers, 1995, 11.

The third way in which time is involved is an innovation's rate of adoption with a system, which is typically measured by how many people adopt the innovation within a certain period of time. The inclusion of time as a defining element in a communications theory is unique, but it is a strength of diffusion studies (Rogers, 1995, 20). Time is involved in the innovation-decision process as an individual gains knowledge and then adopts or rejects the innovation, in the earliness or lateness with which adoption occurs, and in the rate of adoption within a larger system (20).

The fourth element of diffusion is a social system, which is defined as "a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal" (Rogers, 1995, 23). These units can be individuals or groups or organizations, but each is

distinct. Rogers explains that “the sharing of a common objective binds the system together” (24), which system houses the diffusion process.

Diffusion of innovations is often studied as a negative concept, meaning that an innovation does not diffuse, and thus nondiffusion can occur. One example of technological nondiffusion is the Dvorak Keyboard. Most keyboards today use QWERTY keyboards, named after the first six keys on the top row of letters. This type of keyboard “takes twice as long to learn as it should, and makes us work about twenty times harder than is necessary” (Rogers, 1995, 9). The QWERTY keyboard has been around since 1873, and was invented by Christopher Latham Sholes, who intentionally designed it to slow down typists and minimize jamming caused by typing too quickly on typewriters. He achieved this by making the most commonly used letter sequences awkward and difficult. In 1932, August Dvorak, a professor at the University of Washington, utilized time-and-motion studies to develop the Dvorak keyboard, which is significantly more efficient and cuts down on errors. Dvorak rearranged the letters so that 70% of typing is done on the home row, 22% on the upper row, and 9% on the lower row. In addition, “the amount of work assigned to each finger is proportionate to its skill and strength” (Rogers, 1995, 9). Most keystrokes also alternate hands, which allows for faster typing. This was achieved by placing the vowels, which represent approximately 40% of all typed letters, on the left-hand side, and the accompanying consonants on the right-hand side. On a QWERTY keyboard, the left hand types 57% of most words, whereas on the Dvorak keyboard, the left hand types only 44%. Since most people are right-handed, this utilizes the stronger right hand to type more words. On the QWERTY keyboard, only 32% of typing is done on the home row, versus 70% on the home row of the Dvorak keyboard. The Dvorak keyboard has been approved by the American National Standards Institute and the Equipment Manufacturers Association (Rogers,

1995, 10), but it is almost impossible to find a Dvorak keyboard in circulation today. This example of nondiffusion is not an isolated experience. Nondiffusion is found in many different sectors, and may have occurred regarding social media in government communications.

According to this theory, the rate of diffusion within an organization is influenced by the innovation's relative advantage, compatibility, complexity, trialability, and observability. Rogers defined relative advantage as the degree to which an innovation is seen as being superior to its predecessor" (1995, 212). Compatibility is "the degree to which an innovation is seen to be compatible with existing values, beliefs, experiences, and needs of adopters" (224). Complexity is "the degree to which an innovation is seen by the potential adopter as being relatively difficult to use and understand" (242). Trialability is "the degree to which an idea can be experimented with on a limited basis" (243). Observability refers to "the degree to which the results of an innovation are visible" (244). Within the context of e-government, these factors will influence adoption on both the organizational side and the citizen side. The relative advantage of social media, or the degree to which it is perceived as better than the idea that it supersedes, can be fairly evident in most arguments as its purpose is to be a communication tool for people who were not previously easily or regularly connected. In the Internet age, social media is consistent with social norms and values of speed and convenience, which would indicate that this innovation would be adopted more quickly than an innovation that is inconsistent with these values. Regarding complexity, Rogers explains, "Some innovations are readily understood by most members of a social system; others are more complicated and will be adopted more slowly" (16). As far as trialability, users are able to make their own accounts and experiment as much as they desire. Finally, the observability of social media is most visible to those already operating on it. It is almost a brand new social system within which to diffuse.

First, understanding the importance of social media as an innovation and a Web 2.0 platform, the following research questions will guide this study:

RQ1: Which social media platforms are state legislatures using?

Furthermore, because research has shown that Web 2.0 has several intended improvements, as stated previously, the following questions will be asked with these improvements in mind:

RQ2: What improvements are the state legislatures using in their social media output?

RQ3: Is there a significant difference in the improvements presented on Facebook and Twitter?

In seeking to answer these questions, I hope to gain insight to the trends in each state and extrapolate these findings to future implementation. Although there are several general studies on ideals and outcomes for governments to use social media, I did not find any practical applications of actual governmental accounts, let alone state legislature accounts. In order to improve communication between governments and constituents, it is important to understand what the governments are currently doing.

Chapter 3: Method

This study considers Twitter and Facebook posts on the accounts of state legislative bodies from all 50 states, specifically for the following groups: House/Assembly, Senate, House Republicans, House Democrats, Senate Republicans, Senate Democrats, and General Legislature, from January 11-15, 2016.

Including Facebook and Twitter, there are potentially 14 accounts that can be analyzed for each state, making a total of 700 potential accounts. Out of these 700, I found 368 existing official Facebook pages and Twitter accounts through searching on Facebook, Twitter, and searching for links on their official websites. These searches were conducted by using the state's name, the name of the legislative body, and any parties. For example, to find the Iowa House Democrats' Facebook account, I searched for "IA House Democrats" or "Iowa House Democrats" in the Facebook search bar. If this did not yield the official page, I would use a search engine to find the Iowa House Democrats' official website, and then search on that website for their contact information or Facebook logos. The same process was followed for Twitter accounts. When an official account was found and identified, the link was copied and pasted into a spreadsheet that housed all discovered accounts. This database was then used to assign accounts to the two coders. An account was considered "official" based on whether or not the account description identifies itself as official, or is linked from another official source, such as their website or another social media account.

Each state has a different legislative session schedule, and therefore a different peak period for social media use, so it was impossible to accommodate all states' legislative schedules. Based on this, I selected posts that were published between January 11-15, 2016 when 66% of the state legislatures were in session. Additionally, it was close to the time of data

collection, which aided in timely collection. While the remaining 34% of states were not in session when the study was conducted, many of these states were still active on social media and were still included in this study. However, the fact that 34% of states were not in session is the main limitation of this study.

Before coding, I trained one other coder on the method, and conducted a sample coding to establish intercoder reliability. The reliability coding sample was created from accounts that existed, but were not randomly selected to be coded in the actual study. Through this exercise we achieved the following levels of intercoder reliability:

Improvement	Krippendorff's Alpha
Transparency	0.824
Policy Making	0.856
Public Services	0.850
Knowledge Management	0.819

We used 10% of the sample size to establish intercoder reliability. According to Neuendorf's coefficient threshold for acceptability, which is .80, these levels are acceptable (Wimmer & Dominick, 2011, 175).

For the study, I consulted an online calculator at <http://www.surveysystem.com/sscalc.htm> to determine the necessary sample size based on the population size. With a confidence level of 95% and a confidence interval of 5, a population size of 370 accounts necessitated a sample size of 189 accounts. Coder 1 was responsible for 94 accounts, and coder 2 was responsible for 95 accounts, equaling a total of 189 accounts coded to achieve this sample size of approximately 51%. To select the 189 accounts to be used, each account was assigned a number from 1-370, and an online random number generator at <https://www.randomizer.org/> was used to select 189 random numbers. The resulting list, or set, was then applied to the list of accounts, and the numbered accounts not included on the set were

removed. After this, the 189 accounts were entered into <https://www.randomizer.org/>. This time I pulled two sets of 95 unique numbers per set, and these accounts were randomly split between the two coders.

To code an account, we would click on the link previously saved in the account collection database. If the link was broken, we found the account by searching through the original channels again. Once at the account, we would note the following information on the coding spreadsheet:

- Facebook or Twitter (1 for Twitter, 2 for Facebook)
- State (2-letter abbreviation)
- Legislative Body (1 for House, 2 for Senate, 3 for General Legislature)
- Party (1 for Republican, 2 for Democrat, 3 for non-partisan)
- Followers
- Following (for Twitter accounts only)
- Total number of posts on the account during the dates studied

In addition to these improvements, we also recorded the date and time of each post. Each post was then coded for the four goals of improvement (public sector transparency, policy making, public services, and knowledge management and cross-agency cooperation) from Bonsón, Torres, Royo, and Flores (2012). We analyzed social media posts looking for specific applications of these techniques to measure effectiveness. In order to operationalize this concept, the following specific types of information for each improvement were used:

1. Public Sector Transparency
 - a. Provide logistical information about upcoming events, activities, meetings, etc.
 - b. Inform about legislative news, updates, information, etc.

2. Policy Making
 - a. Seek feedback about an issue from the public
 - b. Facilitate dialogue/creativity/collaboration/participation among citizens and politicians
 - c. Ask viewers to share/retweet the post or to invite friends to participate
 - d. Generate support for a position
3. Public Services
 - a. Announcing new services available
4. Knowledge Management & Cross-Agency Cooperation
5. Link to another government organization/body/group
 - a. Each one of these specific types of information was rephrased into a yes-no question for operationalization and coding purposes, as shown below:

Public Sector Transparency

- Are they sharing agenda items?
- Are they sharing logistical information about upcoming activities, events or meetings?
- Are they sharing information about a public past activity, event or meeting that they put on?
- Are they informing the public about legislative news?

Policy Making

- Did they ask a question to spark engagement?
- Did they ask for people to submit ideas to them?
- Did they ask for people to contact them?

- Did they ask people to share the post on social media or with someone else? Did they ask for support for a position or project?

Public Services

- Did they provide a way for people to access a service?
- Did they announce a new service?

Knowledge Management/Cross-Agency Cooperation

- Did they link/refer to another body or group?

Each post could potentially have more than one improvement, depending on what they were sharing. Each question was coded as a binary nominal variable, with either 0 or 1. Posts that were exclusively retweets on Twitter and shares on Facebook were not counted because they were not original content posted by the official page.

I will analyze the results from this study using SPSS by running chi-square analyses on the coded posts. To answer RQ1 (Which social media platforms are state legislatures using?), I will analyze the gathered data about each account prior to conducting the coding. To answer RQ2 (What improvements are the state legislatures using in their social media output?), I will run a frequency analysis on all questions within the improvements. To answer RQ3 (Is there a significant difference in the improvements presented on Facebook and Twitter?), I will run a chi-square analysis on each improvement's questions and both platforms. The unit of observation is the post from Twitter or Facebook.

To generate the results, I will conduct a content analysis and then interpret the findings. Content analysis is an efficient way to investigate the content of the media and is summarized as a systematic, objective, and quantitative method for analyzing research (Wimmer & Dominick, 2011, 156). A content analysis is conducted in ten steps (160):

1. Formulate the research question
2. Define the universe
3. Select a sample from the population
4. Select and define a unit of analysis
5. Construct categories
6. Establish a quantification system
7. Train coders and conduct a pilot study
8. Code the content
9. Analyze the data
10. Draw conclusions

The first eight steps have been outlined thus far, and the following sections will complete steps nine and ten. The most important concepts for the success of a content analysis are reliability and validity. Reliability is defined as when “repeated measurement of the same material results in similar decisions or conclusions” (170). Validity is defined as “the degree to which an instrument actually measures what it sets out to measure” (175). A limitation of the content analysis method is that it means that “no claims about the impact of the content can be drawn from an analysis of the message in the absence of a study that examines the audience” (179). Another limitation is that any findings from this study are “limited to the framework of the categories and the definitions used in [the] analysis” (159).

Chapter 4: Results

Out of 370 existing accounts, I randomly selected a sample of 189 using randomizer.org, as was discussed in the previous chapter. The confidence interval is 5.14. There were a total of 1,448 posts coded, with a total of 1,233 tweets and 215 Facebook posts. The most active account, with 118 posts during the timeframe studied, was the Indiana Senate Democrats' Twitter account (@INSenDems). 78 accounts didn't have any posts during the week of January 11-15, 2016.

The average number of total accounts per state was 7.67, out of 14 potential accounts. Of seven potential Facebook or Twitter accounts, the average number of total accounts per state was 3.42 and 4.25, respectively. Table 4.1 shows a breakdown of which legislative bodies had accounts and which platforms those accounts were on.

Table 4.1

Distribution of Accounts by Legislative Body and Platform

	Facebook	Twitter	Total	
House	9	15	24	6.5%
Senate	8	18	26	7.0%
House GOP	34	35	69	18.7%
House Democrats	37	37	74	20.0%
Senate GOP	33	30	63	17.0%
Senate Democrats	33	37	70	18.9%
General Legislature	11	33	44	11.9%
Total	165	205	370	
	44.6%	55.4%		

Table 4.2 shows statistics for each type of account that was included in the sample, including legislative body and political party (Republican, Democrat, or non-partisan) on each platform.

Table 4.2

Account Statistics by Platform

	Twitter	Facebook	Overall
Most Common Legislative Body	House/Assembly	House/Assembly	House/Assembly
Most Common Political Party	Democrat	Republican	Democrat
Average Number of Followers	6,701.51	2,658.49	4,954.1
Average Number of Posts	18.54	4.41	12.43

RQ1: Which social media platforms are state legislatures using?

The data from this question came from analysis of the accounts prior to conducting the content analysis. The unit of analysis was the account, to analyze the number that existed. Of the 370 existing accounts, 205 were on Twitter, and 165 were on Facebook. It is important to note that although 370 accounts existed, this study included seven groups from 50 states across two platforms. This means that there were a total of 700 potential accounts. More than half (55.43%) of all groups and states have created social media accounts, which is well past the point of critical mass (or “the tipping point”) with regard to diffusion of innovations.

RQ2: What improvements are the state legislatures using in their social media output?

I conducted a frequency analysis of the data, revealing each instance of each question within the four improvements, and then analyzed the overall contribution. Table 4.3 shows the totals for each question, and then breaks down the totals for each improvement. This data is for both Twitter and Facebook combined.

Table 4.3

Frequencies of Improvements on Social Media

Improvement	Question	Total Count	% of Total
Transparency	Are they sharing agenda items (items to be discussed?)	373	19.45%
	Are they sharing logistical information about upcoming activities, events or meetings?	250	13.03%
	Are they sharing about a public past activity, event or meeting that they put on?	197	10.27%
	Are they informing about legislative news?	633	33.00%
	Transparency Total	1,453	75.76%
Policy Making	Did they ask a question to spark engagement, or ask for comments?	12	0.63%
	Did they ask for people to submit ideas to them or contact them?	8	0.42%
	Did they ask people to share the post on social media or with someone else?	0	0.00%
	Did they ask for support for a position or project?	14	0.73%
	Policy Making Total	34	1.77%
Public Services	Did they provide a way for people to access a service?	56	2.92%
	Did they announce a new service/draw attention to an existing service?	10	0.52%
	Public Services Total	66	3.44%
Knowledge Management	Did they link/refer to another body or government group?	365	19.03%
	Knowledge Management Total	365	19.03%

As shown in Table 4.3, the most common improvement is Transparency, with 75.76% of the total posts containing an instance of at least one of the questions. The next most common improvement is Knowledge Management, with 19.03% of all posts.

RQ3: Is there a significant difference in the improvements presented on Facebook and Twitter?

I performed a chi-square test of independence on all questions and platforms to answer RQ3. This analysis showed that upcoming events are more common than expected on Twitter (14.1% of all posts on platform), and that posts asking for support on an issue are more common than expected on Facebook (1.6% of all posts on platform), $X^2(9, N = 1918) = 19.957, p = .018$. Table 4.4 shows the results of the chi-square analysis.

I also performed a chi-square test of independence to determine the relationship between each improvement's questions and each platform. Transparency, $X^2(3, N = 1453) = 12.439, p = .006$, was more common on Twitter than on Facebook (shown on Table 4.5). Specifically, information about upcoming events was more likely to be reported on Twitter than on Facebook, with an adjusted residual of 3.2 on Twitter. Policy Making, $X^2(2, N = 34) = 2.010, p = .366$ and Public Services, $X^2(1, N = 66) = 3.537, p = .060$, were not statistically significant (shown on Table 4.6 and Table 4.7, respectively). Two Policy Making questions ("Did they ask for people to submit ideas to them?" and "Did they ask for people to contact them?") were combined into one nominal category for this analysis because each one had an expected count less than 5, and were very similar in nature. With this in mind, the Policy Making results will be analyzed with only three questions instead of the four outlined in the method section.

Because Knowledge Management consisted of only one question, a chi-square test of goodness-of-fit was performed to determine the relationship between this improvement and each social media platform. Knowledge Management, $X^2(1, N = 365) = 161.778, p = < .05$, was posted about on Twitter more than expected (shown on Table 4.8).

Table 4.4

Results of Chi-Square Test and Descriptive Statistics for Improvements by Platform

	Transparency				Policy Making			Public Services		Knowledge Management		Total
	Agenda Items	Upcoming Events	Past Events	Legislative News	Ask a Question	Ask for Contact or Ideas	Ask for Support	Provide a way to access service	Announce new service	Link/Refer to Another Body		
Platform	Count	226	156	529	10	7	9	51	7	304	1603	
	Expected Count	208.9	164.6	529.0	10.0	6.7	11.7	46.8	8.4	305.1	1603.0	
	% within Platform	14.1%	9.7%	33.0%	.6%	.4%	.6%	3.2%	.4%	19.0%	100.0%	
	% within Question	90.4%	79.2%	83.6%	83.3%	87.5%	64.3%	91.1%	70.0%	83.3%	83.6%	
	% of Total	11.8%	8.1%	27.6%	.5%	.4%	.5%	2.7%	.4%	15.8%	83.6%	
	Adjusted Residual	3.1	-1.8	.0	.0	.3	-2.0	1.5	-1.2	-2		
Facebook	Count	24	41	104	2	1	5	5	3	61	315	
	Expected Count	41.1	32.4	104.0	2.0	1.3	2.3	9.2	1.6	59.9	315.0	
	% within Platform	7.6%	13.0%	33.0%	.6%	.3%	1.6%	1.6%	1.0%	19.4%	100.0%	
	% within Question	9.6%	20.8%	16.4%	16.7%	12.5%	35.7%	8.9%	30.0%	16.7%	16.4%	
	% of Total	1.3%	2.1%	5.4%	.1%	.1%	.3%	.3%	.2%	3.2%	16.4%	
	Adjusted Residual	-3.1	1.8	.0	.0	-.3	2.0	-1.5	1.2	.2		
Total	Count	250	197	633	12	8	14	56	10	365	1918	
	Expected Count	250.0	197.0	633.0	12.0	8.0	14.0	56.0	10.0	365.0	1918.0	
	% within Platform	13.0%	10.3%	33.0%	.6%	.4%	.7%	2.9%	.5%	19.0%	100.0%	
	% within Question	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	13.0%	10.3%	33.0%	.6%	.4%	.7%	2.9%	.5%	19.0%	100.0%	
	Adjusted Residual											

Note. $\chi^2 = 19.957$, $df = 9$.

* $p = .018$

Table 4.5

Results of Chi-Square Test and Descriptive Statistics for Transparency by Platform

		Transparency				Total	
		Agenda Items	Upcoming Events	Past Events	Legislative News		
Platform	Twitter	Count	304	226	156	529	1215
		Expected Count	311.9	209.1	164.7	529.3	1215.0
		% within Platform	25.0%	18.6%	12.8%	43.5%	100.0%
		% within Transparency	81.5%	90.4%	79.2%	83.6%	83.6%
		% of Total	20.9%	15.6%	10.7%	36.4%	83.6%
		Adjusted	-1.3	3.2	-1.8	.0	
	Facebook	Count	69	24	41	104	238
		Expected Count	61.1	40.9	32.3	103.7	238.0
		% within Platform	29.0%	10.1%	17.2%	43.7%	100.0%
		% within Transparency	18.5%	9.6%	20.8%	16.4%	16.4%
		% of Total	4.7%	1.7%	2.8%	7.2%	16.4%
Adjusted		1.3	-3.2	1.8	.0		
Total	Count	373	250	197	633	1453	
	Expected Count	373.0	250.0	197.0	633.0	1453.0	
	% within Platform	25.7%	17.2%	13.6%	43.6%	100.0%	
	% within Transparency	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	25.7%	17.2%	13.6%	43.6%	100.0%	

Note. $X^2 = 12.439$, $df = 3$.

* $p = .006$

Table 4.6

Results of Chi-Square Test and Descriptive Statistics for Policy Making by Platform

		Policy Making			Total	
		Ask a Question	Ask for Contact or Ideas	Ask for Support		
Platform	Twitter	Count	10	9	7	26
		Expected Count	9.2	10.7	6.1	26.0
		% within Platform	38.5%	34.6%	26.9%	100.0%
		% within Policy Making	83.3%	64.3%	87.5%	76.5%
		% of Total	294.%	26.5%	20.6%	76.5%
		Adjusted	.7	-1.4	.8	
	Facebook	Count	2	5	1	8
		Expected Count	2.8	3.3	1.9	8.0
		% within Platform	25.0%	62.5%	12.5%	100.0%
		% within Policy Making	16.7%	35.7%	12.5%	23.5%
		% of Total	5.9%	14.7%	2.9%	23.5%
Adjusted		-.7	1.4	-.8		
Total	Count	373	12	14	8	
	Expected Count	373.0	12.0	14.0	8.0	
	% within Platform	25.7%	35.3%	41.2%	32.5%	
	% within Policy Making	100.0%	100.0%	100.0%	100.0%	
	% of Total	25.7%	35.3%	41.2%	23.5%	

Note. $X^2 = 2.010$, $df = 2$.

* $p = .366$

Table 4.7

Results of Chi-Square Test and Descriptive Statistics for Public Services by Platform

		Public Services			Total
			Provide a way to access service	Announce new service	
Platform	Twitter	Count	51	7	58
		Expected Count	49.2	8.8	58.0
		% within Platform	87.9%	12.1%	100.0%
		% within Public Services	91.1%	70.0%	87.9%
		% of Total	77.3%	10.6%	87.9%
		Adjusted	1.9	-1.9	
	Facebook	Count	5	3	8
		Expected Count	6.8	1.2	8.0
		% within Platform	62.5%	37.5%	100.0%
		% within Public Services	8.9%	30.0%	12.1%
	% of Total	7.6%	4.5%	12.1%	
	Adjusted	-1.9	1.9		
Total		Count	373	56	429
		Expected Count	373.0	56.0	429.0
		% within Platform	25.7%	84.8%	15.2%
		% within Public Services	100.0%	100.0%	100.0%
		% of Total	25.7%	84.8%	15.2%

Note. $X^2 = 3.537$, $df = 1$.

* $p = .060$

Table 4.8

Results of Chi-Square Test for Knowledge Management by Platform

	Observed N	Expected N	Residual
Twitter	304	182.5	121.5
Facebook	61	182.5	-121.5
Total	365		

Note. $X^2 = 161.778$, $df = 1$.

* $p < .05$

Chapter 5: Discussion

The purpose of this study was to examine the use of social media, specifically Twitter and Facebook, by state legislative bodies. This chapter will further discuss the results and other unique findings, explore these results within the context of diffusion of innovations and compare these findings to previous research.

Previous Research

Previous research indicated that the Internet is a powerful tool for governmental transparency. The results of this study supported this idea, for the most part, and showed that most governments are attempting to be transparent on social media, as transparency was the second most frequent improvement.

Dennis Linders spoke of “citizen coproduction,” or, as measured in this study, “Policy Making.” This involves “facilitating dialog, creativity, collaboration, and participation...[by] increasing interest in politics and citizen participation; expanding the number and types of participants; generating support for a position/project; and creating identity and trust” (Bonsón, Torres, Royo, and Flores, 2012). Within the context of this study, this particular improvement was the least-utilized area of the four improvements, but offers perhaps the greatest potential that social media can offer to governmental entities. Building on Linders’ study, he identified three areas where officials can implement this idea of citizen coproduction (Linders, 2012, 447):

- Citizen sourcing (citizens to government)
- Government as a platform (government to citizen)
- Do-it-yourself government (citizen to citizen)

The majority of posts examined in this study would qualify as government as a platform, or government to citizen. The amount of citizen sourcing, or citizens to government interaction

was very limited. The greatest potential for citizen sourcing in social media's current form is the comments on a post, which were not common in this study. I observed that followers were not frequently commenting on posts, regardless of the platform. Most posts did not include a comment, and if they did, the governmental body or the page author was most likely not responding to them. I saw no instances of Facebook or Twitter account administrators responding to a follower comment during the studied timeframe. In order for this type of interaction to take place, the government would need to employ someone to monitor social media accounts, likely full-time. However, as postulated by Andrea Kavanaugh et al. (2012), most research found that "the public relations person for various government agencies was typically not familiar with nor comfortable with social media." This creates a problem that can be explained by diffusion of innovations. Specifically regarding social media, society is beyond the point of classifying it as new technology. At this point, the late adopters are beginning to adopt the technology.

However, if the late adopters oversee communications decisions for a governmental body, social media may still carry an element of uncertainty as they are unfamiliar with it, or do not understand the value of being on the same platform as the constituents. In the light of diffusion of innovations, this presents a unique problem. In most situations, the biggest issue is speeding up the rate of adoption, however, when a technology (social media) is no longer a new innovation, and leading public relations practitioners are still resisting adoption, the problem becomes learning a technology when you are behind track. These practitioners would qualify as being in Innovation III, or the final stage of innovation adoption, where the critical mass, or the "tipping point" has already occurred, so the majority of people are already using the technology, and there is a great deal of material and training to go over before adoption can take place.

According to the literature review conducted earlier in this study, the results seem to support previous research, which stated that the United States government is a leader in e-government. The fact that 52% of state legislative bodies were utilizing social media to connect with constituents is a promising statistic, but also shows lack of engagement and adoption. It shows growth towards total integration with communities and an effort to connect with a generation that may have missed all other traditional channels of communication. However, it is also disconcerting that only half of all potential state legislative bodies are attempting to communicate with younger voters on their chosen media. Only two accounts shared posts about registering to vote. Lack of voting trends among the age groups most frequently found on social media was the initial driving force behind this study, so this was especially interesting. The New York Senate also shared information about a new website they created where constituents could register their support or opposition to bills that were up for votes. This type of engagement could reach many more people and encourage further participation in civic matters.

As this is a content analysis, the results cannot be conclusive, but I believe that the consistent results do strengthen the argument for the need to develop e-government and to make it a more prominent form of governance. The United States' diminishing world ranking in e-government readiness is concerning, in part because of the lack of civic involvement from the 18-24 age group. In a year of a pivotal and critical presidential election, it is even more crucial not only for all citizens of a voting age to be involved, but also for them to be informed. In this regard, the results of this study do not show that governments are seeking feedback or input from constituents using new forms of media. The two improvements with the lowest frequencies, public services and policy making, may be the most critical in terms of motivating this population to vote. By informing the public about services that are accessible from home, they

may be more inclined to participate, leading to a more productive public, which in turn may lead to a more productive government. With regard to policy making, which was the least frequent improvement, there are considerable strides that can be made to bring the United States up to par with other global leaders in e-government. For example, facilitating dialogue as is commonly done in a town hall can also be done on social media or even other online outlets. Encouraging participation in this way can significantly enhance perceived governmental transparency, which may also motivate civic engagement.

Overall, the quality of posts was thoughtful, meaningful, and very informative. Most government bodies were using social media to communicate about news and engage their communities.

Other Findings

Although I was looking for the four improvements, a few other trends emerged in the research. These observations are suggested for further research.

While gathering data, I noticed that some accounts had “personalities” – some were very chatty, while others preferred not to generate interaction, but just to disseminate information as quickly and quietly as possible. This reflects specific users or posters within each legislative body, most likely the PR practitioner assigned to work with the social media for that account’s respective legislative body. This may indicate that some PR practitioners are better prepared to engage users and constituents in a more meaningful way by writing interactively. This is a great example of adoption of an innovation within an organization by talented PR practitioners. The Utah Senate Twitter account utilized a less professional but more engaging social media presence. Although they were not in session, they tweeted 18 times in five days, including things like countdowns to the start of the session and relevant facts about the legislative body.



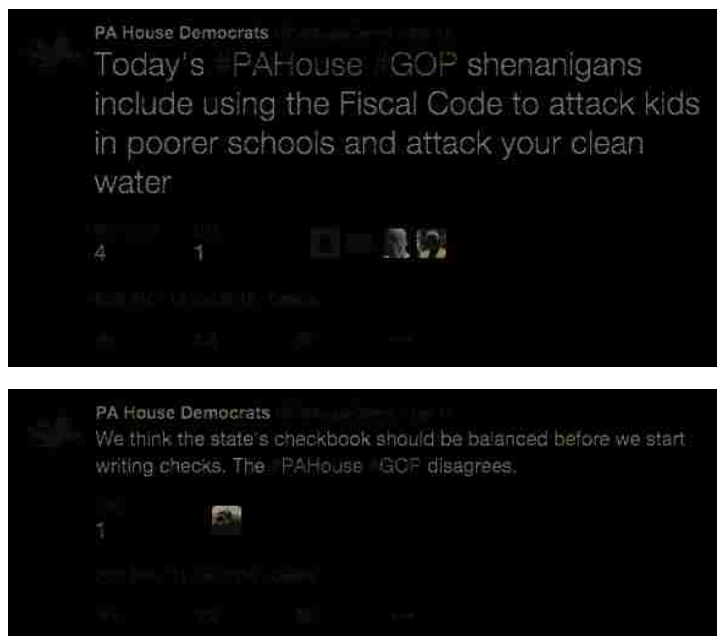
This study revealed many national bipartisan attitudes, and reflected state cultures in unique ways. Several states appeared to hold their annual “State of the State” address during the week studied. This provided great insight



into the issues that each state was facing. In addition, this week was recognized as “National Anti-Human Trafficking Week,” which many states promoted. Thus, by utilizing national or local events, and by updating followers on their involvement in these events, these accounts were able to establish some community-based connections with their followers. The Indiana Senate Democrats’ Twitter account had a unique approach to their “State of the State” coverage. They invited four citizens to participate in a “Twitter Takeover,” also referring to it as “Real Hoosiers React.” They included video introductions of all four panelists and asked them to post their own reactions to the Governor’s address in real time. After the speech, the account resumed normal curation, and invited followers to post their own reactions “in #5words,” complete with professional and consistent graphics that reinforced their message and brand. They also published a follow-up article with their “Top 10 Tweets of Twitter Takeover.” This was a

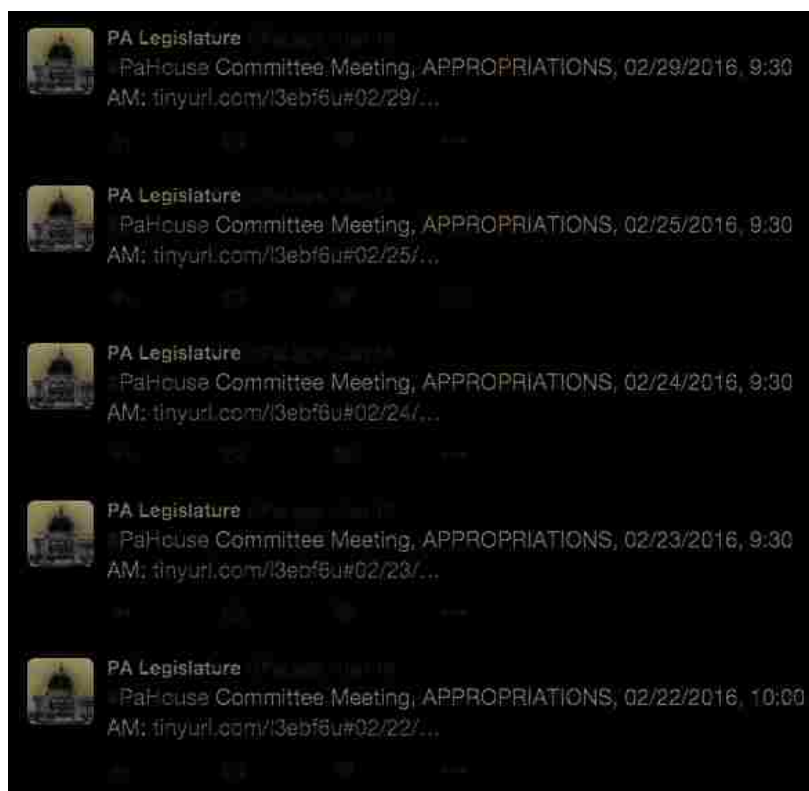
powerful example of asking for feedback through social media (specifically relating to the policy making improvement) and using “real people” to connect with and engage their audience, showing an understanding of how to adopt social media in their organization.

Several accounts used social media to “bash” the opposite political party. Specifically, the Pennsylvania House Democrats shared only about five out of 82 posts that were directly relevant to their group. The remaining 93% of their posts were negative comments about the Republicans. Although they were using social media frequently, their negative usage stood out in this study because they were one of the only groups utilizing the platform to consistently attack another group. This shows adoption of innovation, but does not necessarily indicate that a PR practitioner is the one running the account, since there is almost no discussion of the Democrats’ work or policies, and basic public relations would dictate that negative words against one’s opponents reflects negatively on the inciting organization.



Twitter accounts often utilized the platform to announce committee room assignments and times. This platform worked well because the messages were short, frequent, and specific.

However, it would be difficult to find information about a specific committee in their large string of tweets, as in the Pennsylvania Legislature's account, for example:



This example shows a lack of efficiency with the innovation, and may be an example of incorrect adoption.

Contribution to Field of Study

The average number of followers for an account was 6,290 on Twitter and 2,706 on Facebook. Although these numbers do not give any insight regarding demographic information, they do show that there are, on average, at least a few thousand constituents who are interested in hearing from and interacting with their government on a social media platform. The relevance of social media as a channel for e-government has been demonstrated in these numbers alone. However, in addition, these findings contribute to the field of e-government research by lending data towards a new perspective, which includes integrating social media with other online

resources for increased civic engagement. When the rate of adoption according to diffusion of innovations increases, and this become more common, it may also increase the number of users who are interested in connecting with government on social media, thereby improving the quantity, and possibly quality, of feedback that governments can glean from social media. Furthermore, there are many other opportunities to increase knowledge regarding this topic by using this study as a foundation. Namely, one specific area that this study did not focus on, but which future research could, was which improvements receive the most engagement, as well as which specific legislative bodies (i.e. a House Democrats account versus a general Senate account) garner the most followers. For even further study, an analysis of voting rates in districts compared to those districts' social media followers and account activity would also likely yield highly relevant and meaningful results.

Practical Implications

As mentioned, success in Web 2.0 communication relies on public relations competency. For PR practitioners who are responsible for a governmental social media account, there are several important findings to consider, such as incorporating the four improvements in this study into posts, having a social media plan, and using it as a necessary tool.

First, by focusing on these four improvements equally, constituents may be more engaged and involved in civic matters.

Second, one of the most critical elements for success is having a developed social media plan, or policy. PR practitioners can do this by determining the organizational goals and objectives that they would like to achieve by using social media. After these goals are established, creating a team of people from communication, legal, technology, human resources, and program unit departments can allow for a multi-functional development of policy. Utilize

this team to identify and research other similar agency (or body) policies surrounding communication and social media. Using this research as a foundation, the team should discuss any “conflicts or inconsistencies between proposed and existing policies and procedures” (Hrdinová, Helbig, & Peters, 2010, 14). After establishing this policy, a plan should be constructed that incorporates the eight elements as outlined in the literature review from the same study (5), and which are:

1. Employee access
2. Account management
3. Acceptable use
4. Employee conduct
5. Content
6. Security
7. Legal issues
8. Citizen conduct

Utilizing these resources to establish a policy and a plan, the results from this study can then be applied to the actual posts and their content. By incorporating all four improvements into a regular social media-posting plan, this will drive constituent engagement, and may in turn increase civic engagement and voting rates.

Chapter 6: Conclusion

This study focused on the use of social media, specifically Twitter and Facebook, by state legislative bodies and their respective political parties for the development of e-government. The analysis was based on a previous study, which provided four improvements that government organizations should utilize on social media: transparency, policy making, public services, and knowledge management. This study found that of 700 potential accounts, 370 accounts, or 52.8%, had been created for the legislative bodies. Most of these accounts (55%) were on Twitter. These channels were most frequently used for knowledge management and transparency, and were almost never used for public services or policy making. One type of Transparency was posted more often on Facebook than on Twitter, and Knowledge Management was posted more often on Twitter than on Facebook.

These findings support previous e-government research and analysis, which states that the United States is one of the top leaders of e-government in the world. However, they also suggest that there is more that can be done to improve civic engagement, and because of the high rate of young adult social media usage, this could impact the 18-24 population and its voting turnout.

As mentioned previously, this study is founded on e-government as a developmental concept, but also on governmental transparency as a prime component of e-government. These are achieved through open media channels, including social media, which is an important channel within Web 2.0, focused on user engagement and two-way communication.

Based on the rate of diffusion of social media among these young voters, PR practitioners' usage of social media for governmental bodies could benefit from joining even as late adopters and using social media platforms as tools to engage, inform, and listen. When used

to empower and build, the results of this study can be used to educate public relations practitioners for various governmental bodies on best practices to reach their constituents and increase public awareness - and potentially voter turnout.

References

- Bertot, C., Jaeger, P., & Grimes, J. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government Information Quarterly*, 27, 264-271. doi:10.1016/j.giq.2010.03.001
- Bonsón, E., Torres, L., Royo, S., & Flores, F. (2012). Local e-government 2.0: Social media and corporate transparency in municipalities. *Government Information Quarterly*, 29(2), 123-132. doi:10.1016/j.giq.2011.10.001
- Chun, S., & Reyes, L. (2012). Social media in government. *Government Information Quarterly*, 29(4), 441-445. doi:10.1016/j.giq.2012.07.003
- di Gennaro, C. & Dutton, W. (2006). The Internet and the public: Online and offline political participation in the United Kingdom. *Parliamentary Affairs*, 59(2), 299-313. doi:10.1093/pa/gsl004
- File, T. (2014). *Young-adult voting: An analysis of presidential elections, 1964-2012* (P20-573). Retrieved from U.S. Census Bureau website: <http://www.census.gov/prod/2014pubs/p20-573.pdf>
- Florini, A. (1998). The end of secrecy. *Foreign Policy*, 50-64.
- Gladwell, M. (2006). *The tipping point*. New York: Little, Brown and Company.
- Hrdinová, J., Helbig, N., & Peters, C. (2010). Designing social media policy for government: Eight essential elements. Retrieved from University at Albany, SUNY, Center for Technology in Government website: http://www.ctg.albany.edu/publications/guides/social_media_policy/social_media_policy.pdf
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53, 59-68.

doi:10.1016/j.bushor.2009.09.003

Kavanaugh, A., Fox, E., Sheetz, S., Yang, S., Li, L., Shoemaker, D., ... Xie, L. (2012). Social media use by government: From the routine to the critical. *Government Information Quarterly*, 29(4), 480-491. doi:10.1016/j.giq.2012.06.002

Kids Count Data Center. (2014). *Adult population by age group*. [data file]. Retrieved from <http://datacenter.kidscount.org/data/tables/6538-adult-population-by-age-group?loc=1&loct=1#detailed/1/any/false/133/117/13515,13516>

Landsbergen, D. (2010). Government as part of the revolution: Using social media to achieve public goals. *Electronic Journal of e-Government*, 8(2), 135-147.

Linders, D. (2012). From e-government to we-government: Defining a typology for citizen coproduction in the age of social media. *Government Information Quarterly*, 29(4), 446-454. doi:10.1016/j.giq.2012.06.003

McCarthy, C. (2009, June 3). Twitter co-founder: We'll have made it when you shut up about us. *CNET*. Retrieved from <http://www.cnet.com/news/twitter-co-founder-well-have-made-it-when-you-shut-up-about-us/>.

National Democratic Institute for International Affairs. (2008). *Constituent relations*. Washington, DC.

Open Society Justice Initiative. (2006). *Transparency and silence: A survey of access to information laws and practices in 14 countries*. Open Society Institute: New York.

Patterson, T. (2016, April 26). Little to "like": Social media and the HK government. *Harbour Times*. Retrieved from <http://harbourtimes.com/2016/04/26/little-to-like-social-media-and-the-hk-government/>

- Piotrowski, S. J. (2007). *Governmental transparency in the path of administrative reform*. New York: SUNY Press.
- Rawlins, B. (2008). Give the emperor a mirror: Toward developing a stakeholder measurement of organizational transparency. *Journal of Public Relations Research*, 21(1), 71-99.
- Rogers, M. (1995). *Diffusion of innovations (4th edition)*. New York: The Free Press.
- Smith, A. (2013). *Civic engagement in the digital age*. Retrieved from Pew Research Center website: <http://www.pewinternet.org/2013/04/25/part-2-political-engagement-on-social-networking-sites/>
- Tedesco, J. (2007). Examining Internet interactivity effects on young adult political information efficacy. *American Behavioral Scientist*, 50(9), 1183-1194.
doi:10.1177/0002764207300052
- United Nations Department of Economic and Social Affairs. (2012). *United Nations e-government survey 2012: E-government for the people* (Report No. ST/ESA/PAD/SER.E/150). New York: United Nations.
- United Nations Department of Economic and Social Affairs. (2014). *United Nations e-government survey 2014: E-government for the future we want* (ST/ESA/PAD/SER.E/188). New York: United Nations.
- Van Dijck, J. (2013). *The culture of connectivity: A critical history of social media*. New York: Oxford University Press.
- Wimmer, R. & Dominick, J. (2011). *Mass media research: an introduction*. Boston: Wadsworth, Cengage Learning.

Appendix A: Coding Handbook

Below is the process for coding an account. It is best to code an entire account at once, because you will need to scroll for a while to find the right posts.

1. Find your assigned accounts and the links to them on the account assignments spreadsheet.
 - a. If it is a Facebook account, click on “highlights” and change it to “all stories”.
2. Record the page title (State, Legislative Body, party, number of followers, and number of people the page is following (if it is a Twitter account)).
 - a. Facebook or Twitter (1 for Twitter, 2 for Facebook)
 - b. State (2-letter abbreviation - ex: ID for Idaho)
 - c. Legislative Body (1 for House, 2 for Senate, 3 for General Legislature)
 - d. Party (1 for Republican, 2 for Democrat, 3 for non-partisan)
 - e. Followers
 - f. Following (for Twitter accounts only)
 - g. Total number of posts on the account during the dates studied
3. Scroll down to January 11, 2016 and work your way up to January 15, 2016
4. Expand the post/tweet before coding.
 - a. Record the date and time of the post.
 - b. If you are on Facebook, hover over the date, and it will show you the time.
5. Record the number of likes, shares, and comments for the post.
6. For each post/tweet, answer the list of questions (please note the examples included below as well):

Transparency

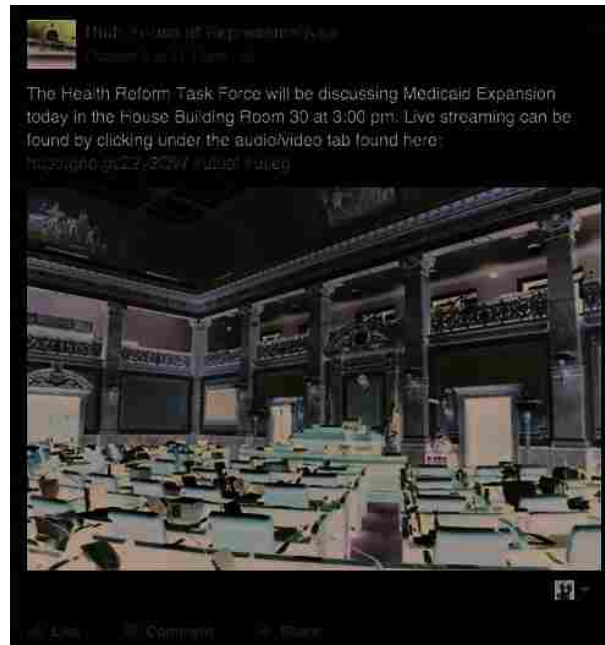
Are they sharing agenda items (issues to be discussed)?

- Any discussion of an issue that is not already passed into law
- Links to interviews that politicians have done with news organizations

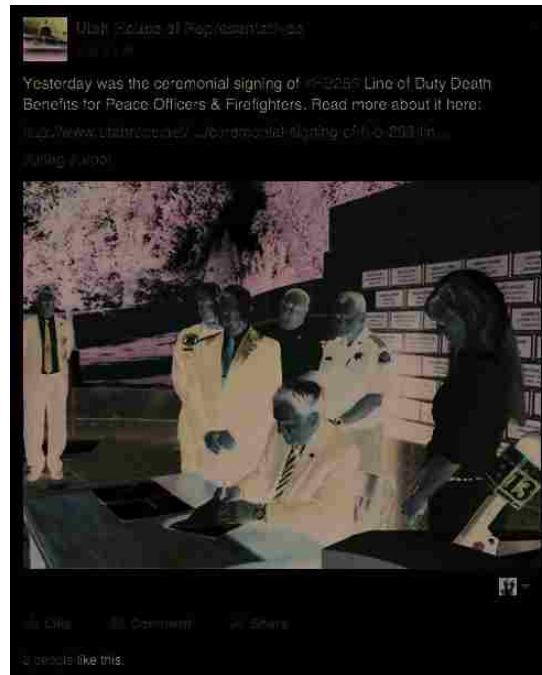


Are they sharing logistical information about upcoming activities, events or meetings?

- Meetings to be held



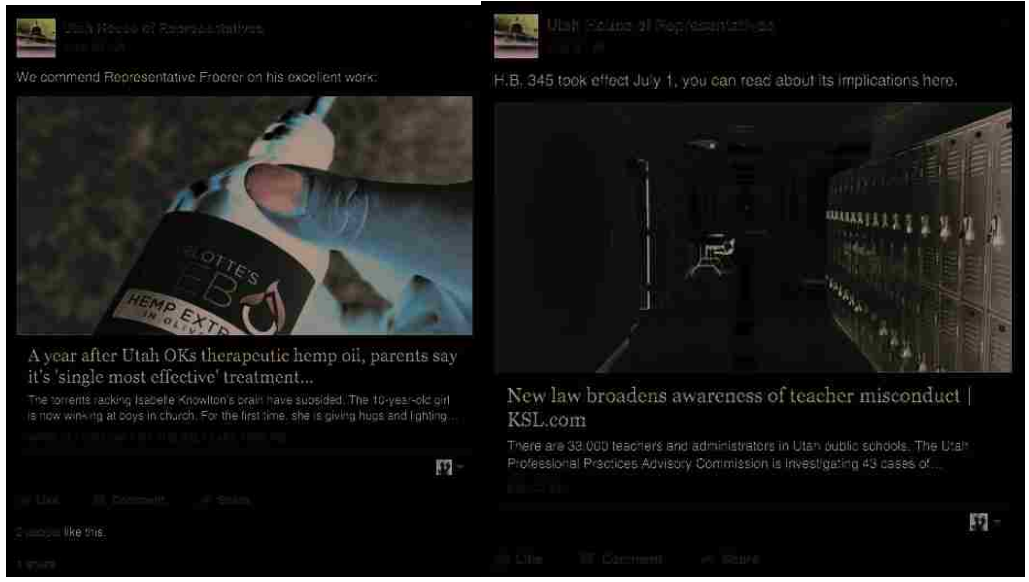
- Community events
- **Are they sharing information about a public past activity, event or meeting that they put on?**
- Recap of a public event that already happened



- Photo of people at a public event

Are they informing the public about legislative news?

- New representative being sworn in
- Updates about a bill/law
- General photos of the legislature



Policy Making

Did they ask a question to spark engagement?

- Actual question that people can respond to (not something like “where has the time gone?”)

Did they ask for people to submit ideas to them?

- Asking for feedback, questions, or ideas

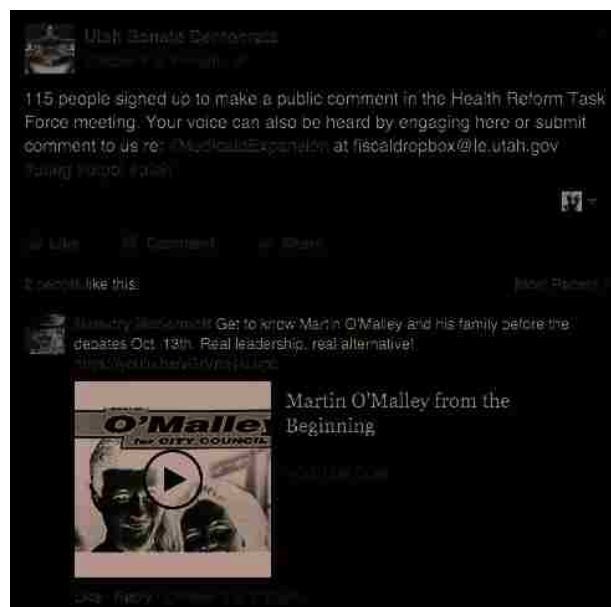
Did they ask for people to contact them?

- Providing contact information for THEM (not another organization)
- Asking people to comment on the post (not just liking/sharing)



Did they ask people to share the post on social media or with someone else?

Did they ask for support for a position or project?



(note: this example would also be coded as asking people to contact them)

Public Services

Did they provide a way for people to access a service?

- Link to voter registration
- Announcing an event for people to sign up for a service

Did they announce a new service?

- “Now offering online DMV scheduling” (*note: this example would also be coded as referring to another body/group*)

Knowledge Management/Cross-Agency Cooperation

Did they link/refer to another body or group?

- References to another government agency
- Links to a website of someone other than the specific page you’re working on



Examples of things that will not answer any of these questions:

- Someone’s birthday
- Memorial posts (September 11, Veteran’s Day)
- Posts about politicians NOT related to the specific state legislature of the account
(congressmen, President Obama, governors from other states, etc.)