

EFFECTS OF ORGANIZATION-LEVEL INTERNET GOVERNANCE: A MIXED-METHOD
CASE STUDY APPROACH TO SOCIAL MEDIA GOVERNANCE

By

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ABSTRACT

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As more and more people utilize mobile devices, wearable technology, and other Internet protocol (IP) based communication systems, the effects of Internet governance on individual users will need to be better understood. Important aspects of the Internet are coordinated at multiple levels, including macro-level global institutions like the Internet Corporation for Assigned Names and Numbers (ICANN), organizational-level governance, and in the form of emerging norms at the level of individual users. Global organizations govern architectural and other high-level aspects of the Internet like domain names and Internet protocol address allocation. Most Internet governance research has focused on the working of these governance bodies, but little research has dealt with the effects of their decisions and of organizational level governance on individual users. Individual users' experiences are mediated by organizational governance rules within the Internet. For example, Facebook operates within the confines of the Internet and other organizations operate within the rules and affordances of Facebook. Individual users' experiences on the Internet are mediated by Facebook, but also by other organizations using social media. I position my dissertation within the theoretical framework of this broader Internet governance research agenda, but focus on the organizational level, which is not well understood yet. My primary focus is meant to be an initial step in examining Internet governance effects on individual users by exploring whether organizational social media governance has measurable effects on individual users. I examine this question using a novel mixed-method research design beginning with a case study of a county government followed by a quantitative

empirical inquiry. Interviews and document analysis were used in the case study. Facebook page data were collected through a partnership with the county. Using multilevel regression analysis, my findings suggest that the organization was able to govern the internal use of social media, but the effects of governance on user engagement (measured by likes, comments and shares from the public on Facebook) with citizens turned out to be weaker than hypothesized. However, the findings show the importance of organizational engagement in generating discussion with the public and sharing organizational content. When developing social media policies, it is important to consider how account level cues and message level cues are perceived by the public and specific audience of the account. My study shows that more theoretical work needs to be done in conceptualizing the behaviors of individuals as they relate to macro- and organizational-level Internet governance. For organizations developing social media policy, my study suggests the use of flexible policies that can be used if needed to achieve compliance.

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Chapter 1: Introduction

What effect does an organization's Internet governance have on the expected internal and external organizational outcomes? In this dissertation, I hope to contribute to Internet governance research with a focus on social media governance within an organization. I am interested in whether organizational level social media governance has any effects on internal goals and external outcomes of that organization. The evidence from this dissertation suggests that the specific governance measures adopted by the chosen organization had stronger effects internally than externally. My hope is to use these findings for additional research on other government and non-government organizations as they work to govern their slice of the Internet space.

The online interactions between local governments and citizens are a microcosm for understanding the impacts of Internet governance on public engagement. Internet governance is a broad academic topic covering a range of research areas regarding "the Internet". Much of it focuses on the overarching, macro-level governance arrangements adopted for the Internet, such as the work carried out by the Internet Corporation for Assigned Names and Numbers (ICANN). Much less attention has been paid to governance arrangements adopted by individual organizations or sectors within the broader framework of Internet governance. Despite its many potential uses much of Internet governance theory remains conceptual and very little evidence documents the connections between governance arrangements and outcomes. Local governments employing some level of social media governance offer an opportunity to examine the effects of aspects of Internet governance on individual behavioral outcomes. For example, local governments set policy regarding use of social media for government purposes, which directly affects how citizens within these locales can be civically active. Municipal governments

also are involved in the development of local broadband networks that alter the availability of affordable broadband (Crawford, 2014). In this dissertation, I employ a novel approach to the study of Internet governance by examining one particular county. This county is of interest because it was one of the first counties in the nation to employ social media governance (Philipps, 2012).

One inherent difficulty in utilizing Internet governance as an explanatory framework for understanding individual users' behaviors is the limited availability of theoretical constructs linking different levels of governance with individual actors. However, an implicit assumption is that governance affects outcomes via the enabling and constraining effects it has on individual decision makers or computational agents. Only if it changes their decisions and behavior will it have an effect on the socio-technical system it seeks to govern. For example, a lot of work has been done on developing copyright policy that is meant to limit copyright infringement on the Internet. Much of this type of Internet governance has not been effective at achieving the desired goal. Copyright policy is a formal mechanism functioning at the macro-level of the Internet that is meant to have far-reaching effects. Understanding what effects a specific Internet governance arrangement will have on individual users could be immensely helpful in developing future policy. Measuring the effect and interpreting the effects of Internet governance is immensely difficult. Thus, there are few empirical studies that document the direct effects of Internet governance because of all of the interacting factors at play.¹ I position my dissertation within the theoretical framework of macro-level Internet governance. Because the timeframe of my study is short and there were no major changes in the broader Internet governance approach during that time period, I can assume that this overarching framework remains constant for the purposes of

¹ There are some in select areas, e.g. cybersecurity (van Eeten et al., 2010; Mueller & Asghari, 2012; van Eeten & Bauer, 2009)

my inquiry.² Within that framework, I explain how organizations, like local governments, and individuals operate at the meso and micro levels of society. These levels are bounded by the particular systems they operate in. In this case, organizations and individuals operate within the Internet system and whatever websites they use. Organizations must operate within the architectural systems of coordination, but they are able to enable and constrain their own actions and possibly actions of their users within the Internet space. For example, a university may choose to use Gmail for their email system. The university is bounded by the larger Internet framework and Google, but can coordinate the behavior of individuals using email for organizational purposes. Similarly, individuals can coordinate their own behavior within boundaries of the system.

While the macro levels of Internet governance (global numbering, protocols, etc.) define the general affordances of the Internet, policies implemented by organizations shape its specific uses for organizational purposes. Thus, organizational level governance rules constrain and enable certain types of uses with the goal to foster organizational goals. Consequently, an increasing number of organizations have adopted specific internal rules and regulations to influence social media use. Little research exists that examines whether these rules affect social media use and responses and, if so, how they shape them. This dissertation seeks to explore this issue for the specific case of a local government.

Local level governments have been relatively slow in adopting Web 2.0 technologies (Reddick & Norris, 2013) although they should be among the first adopters for reciprocal communication tools like social media. The affordances of the communication technology allow for increased and more diverse engagement from citizens, but also offer an essentially free

² Internet governance is within levels 2 and 3 of Williamson's (2000) New Institutional Economics (NIE). The changes that occur at level 2 occur every year to a decade and level 3 changes occur every decade. Thus, the changes occurring are relatively slow.

platform for civic life to take place. There is concern among experts and anecdotal evidence that uncoordinated social media strategies do not facilitate citizen engagement. Hence, innovative local governments have sought to better orchestrate social media use. However, it is not known whether such strategies actually have the desired effects.

When there was just one local news channel and a newspaper, coordinating communication to the public was simple. The Internet adds another layer of complexity, but the advent of Web 2.0 has elicited a level of potential reciprocal engagement not seen previously. Not only can every individual in a local government setting create a social media account, but they can also act as representatives of that organization through sanctioned or unsanctioned communication with the public. These accounts are quickly increasing in local government settings, both in use by the government and public interaction through those mediums (Mossberger & Wu, 2012; Mossberger, Yonghong Wu, & Crawford, 2013). Coordinating all of these accounts becomes immeasurably difficult when considering the number of citizens already on those platforms. The number of potential access points to local level government also increases with each new government account. The public in turn acts on this communication responding to the types of messages, credibility of the government entity, and makes judgements about how to behave and interact with those accounts. Local governments likely will need to develop appropriate governance mechanisms that coordinate those additional communication outlets. Without understanding the effects of those social media coordination decisions, governments will likely continue to guess and implement ineffective policies similar to copyright.

All of these interactions take shape within the specific communications framework established by the mechanisms of Internet governance. Internet governance refers to the

coordination of the Internet and activities mediated through the Internet through a set of formal and non-formal rules, norms, and designs that constrain or enable behavior. For example, net neutrality, the equal treatment of all web traffic, has consequences for individual users. The Federal Communication Commission sets constraints on how Internet Service Providers (ISPs) like Comcast and Verizon are able to manage their networks. The Open Internet Order (FCC, 2015) has altered and will likely further alter how individual users experience the Internet. This order is meant to prevent ISPs and other services from prioritizing some content over others in a type of “fast lane”. Individual citizens and local governments engage with one another through this system by working within the larger architectural framework of the Internet. They may be limited however to the affordances of that specific website in coordinating their own or another’s behavior. This is the crux of the 21st century communication system; a complex system of hierarchical and horizontal communication networks whereby individuals and organizations must make decisions about how to govern themselves, but also how they govern others within their defined spaces of use. By positioning my dissertation in this area, I examine how organizational level governance arrangements affect users of the system and whether they achieve better alignment or outcomes with organizational objectives. This is particularly well suited for Internet governance because of the past research in this area. The focus has largely been on macro-level processes, but in reality policies that coordinate behavior on the Internet occurs at all layers and the effects of specific decisions need to be better understood if we are to continue to develop the Internet we want.

What effect, if any, does an organization’s Internet governance decisions and coordination have on the expected internal and external organizational outcomes? Examining this question allows me to position my dissertation within the larger research discussion on

Internet governance, but also gives me latitude in how I conceptualize and think about what governance is and is not. This work is a first step to show how the effects of forms of Internet governance can be assessed on outcomes. In the future, I hope to use this work in developing broader theories and empirical studies that assess macro-level Internet governance.

Mixed-method Design

I use a novel mixed-methods design integrating two approaches to empirically test my research question and hypotheses: First, I examine a specific organization, which I use as a case study to evaluate the associations between organizational social media governance and engagement at the micro-level. Second, a set of hypotheses examining organizational social media governance effects are developed from the case study and tested with Facebook data using multilevel regressions. The organizational governance and outcomes are identified based on the case study. The case study provides phase two of the design with the internal and external organizational outcomes that act as the dependent variables in the hypotheses outlined in Chapter 3.

I use the exploratory sequential dominant status mixed-method design. This design is preferred when one method is used to inform another, but one method is considered dominant (Leech & Onwuegbuzie, 2009). I treat the quantitative method as the dominant, which occurs in the second phase. I use semi-structured interviews and archival document analysis to do the qualitative case study portion followed by quantitative data collection and analysis. This design is considered exploratory because it begins with a qualitative assessment of the research question followed by a quantitative assessment (Creswell, 2014). For an example, see Waysman and Savaya (1997), who use this mixed-methods design by using focus groups and interviews

(qualitative methods) followed by a survey (dominant quantitative method). Figure 1 below illustrates the phases in the design.

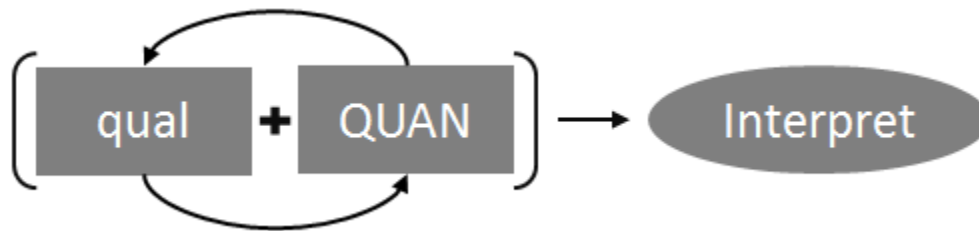


Figure 1 Mixed-method Research Design

The above research design is based on formal notations developed by Morse (Tashakkori & Teddlie, 2010). This mixed-method design illustrates the dominant method being in all caps. A qualitative exploration is performed, but the quantitative method will be the dominant method in the design. The study is a concurrent design where both methods happen at similar times, but feedback loops between the two methods distinguish where one method informs another. Here I list the qualitative method first, because it is being done first and leading to aspects of the quantitative design, but it is possible to go back and do more qualitative research after the completion of the quantitative.

Approach One – Qualitative Assessment

For this phase, I used a case study research design where I employ archival document analysis of the organizational governance policies. I also used semi-structured interviews to better understand how the organization implemented the governance, why the governance was needed, what the organization was looking to achieve, and the perceived effect of the governance. In addition to the qualitative, I developed a set of internal and external

organizational outcomes used to form the basis for the hypotheses for the quantitative approach to the research.

Approach Two – Quantitative Assessment

Facebook page data from organization accounts were used for the quantitative assessment. The data were from fifteen Facebook accounts generated over the course of thirty days during early 2015. The outcomes from the case study form the basis for the hypotheses tested using the Facebook data. A series of multilevel regressions test the relationship between account level variables and Facebook post level variables. The outcomes represent the organizational governance employed by the case study organization in the form of rules and strategies used to coordinate Facebook behavior of employees and citizens interacting on Facebook. Further depth will be given to the statistics and measures used for this phase in Chapter 4.

Case Study Goals, Procedure, and Selection

Examining Internet governance through a meso and micro framework requires a specific type of case that has characteristics that can be mapped to the overall theoretical framework. This case study organization needs to have a history of social media use as well as a history of social media governance as a type of meso-level Internet governance. Local governments fit into this framework nicely. Due to the size and locality of local county based governments, there are opportunities within these spaces for citizens to engage in political communication directly with government. Also, those local governments can establish governance mechanisms to coordinate use of those social media. Fitting the case into the larger narrative, I want to test whether a local

county's Internet governance strategy on social media impacts micro-level interactions. These types of interactions are easily captured on social media. The complexity comes from the interpretation of the meso-level organization social media governance, the county, and reliably and validly measuring the effects it has on social media interactions with the public.

My primary research question is, what effect, if any, does an organization's Internet governance decisions and coordination have on the expected internal and external organizational outcomes. I document a case study to explore this question in-depth using a county government in Michigan. The case study method is particularly useful when looking at exemplars of specific theoretical constructs. The county I have selected represents one of the top counties in the United States for both electronic governance and electronic government (Philipps, 2012) and has been at the forefront of social media governance (Philipps, 2012). For the case study, I perform a document analysis of formal and semi-formal governance documents used to coordinate county use of social media. I also use semi-structured interviews of various county employees involved in the social media use by the county. Based on these analyses, I formulate a set of internal and external organizational outcomes, which I use as the basis for testable hypotheses explained in Chapter 3.

The case study provides the testable hypotheses necessary to examine the effect of higher level Internet governance on lower level interactions. By examining an organization's own meso-level Internet governance through social media, I establish a set of expectations regarding what the organization hopes to achieve with social media governance. Social media governance employed by the case study organization is then tested against a set of online interactions that make sense as direct outcomes of those governance strategies.

Chapter 2: Governance Theory, Internet Governance and Organizational Social Media

Governance

Grasping how my dissertation is positioned within the larger body of governance research is important for understanding my research design. My research design is positioned within the broader research literature on Internet governance. Therefore, in this chapter, I first provide background on governance, Internet governance and the broad theoretical framework for my dissertation.

There are three ideas I develop from the definitions of governance I examine: (1) governance can occur at the macro, meso and micro levels of sociotechnical systems, (2) state and non-state actors typically participate in governance, and (3) governance can be both formal and non-formal. I follow Mayntz (2003) by applying the concept of governance to all layers of the sociotechnical systems. Thus, for the purposes of this dissertation, I define governance as the formal or non-formal coordination of societal actors operating within a defined sociotechnical system. Not all forms of governance are effective in achieving the desired coordination and this is something I explore. Following the literature, I define sociotechnical systems (STS) as, “the linkages between elements necessary to fulfill societal functions (e.g. transport, communication, nutrition)” in which technology fulfills those functions through the use of “production, distribution and use of technologies as sub-functions” made up of resources characterized by “artefacts, knowledge, capital, labour, cultural meaning (etc)” (Geels, 2004, p. 900).

Most broadly defined, governance refers to all the ways in which society coordinates itself through formal or non-formal mechanisms (Levi-Faur, 2012). According to Mayntz (2003), the meaning of governance differentiated during the late 1990s into two separate ideas.

Governance, in one sense, was thought of as a hierarchical control model that explained how society was coordinated from the top down in the form of centralization or free market based approaches. However, during a transition period researchers began to view governance as a public/private venture where networks of various state and non-state actors participated in coordination of society (Mayntz, 2003). Thus, rather than a top-down hierarchical approach only governance was considered from a horizontal structure where public and private groups worked together. An alternative notion developed out of transaction cost economics, whereby governance “means the different modes of coordinating individual actions, or basic forms of social order” (Mayntz, 2003, p. 28). This second definition focuses on the coordination of individuals rather than a hierarchy. Somewhat unfortunately for conceptual clarity, the term “governance” is used in several additional meanings. For example, Fukuyama (2013) defines governance as “a government’s ability to make and enforce rules, and to deliver services, regardless of whether that government is democratic or not” (p. 350). In line with Mayntz, (2003), Mueller, Mathiason, and Klein (2007) define governance “in terms of intentional ordering, in which coordination is achieved according to some plan, and on legitimacy, in which decisions affecting a community are accountable to the members of that community” (p. 244).

Mechanisms of Governance

The various mechanisms of governance lend themselves to different methods for managing society in formal and non-formal ways. This is not meant to be a comprehensive review of the research on governance, governance arrangements, or of governance mechanisms. Of the potential mechanisms, I only discuss a few. Williamson (1996) focuses on markets, hybrids, hierarchies and bureaus, which he regards as core institutions of governance. He

focuses on how differences in environments and coordination challenges determine which of many alternative governance institutions will be most effective. Williamson was influenced by Coase (1937) and others, but argued that the “institutions are the mechanisms of governance” (p. 5). Rules within firms meant to control employee behavior can be defined as “minimally acceptable behavior” (p. 227). Laws are the formal rules that provide legal guidelines for guiding society. Markets are non-formal where the collective choice of consumers outweighs the few. Social norms are non-formal rules developed by society as an understanding, but are not legally binding or sanctioned by a state. Among the various mechanisms identified within governance theory, Lessig (2006) adds code, which is the use of computer programming to dictate how and what a system can be used for. Networks of individuals and institutions were seen as early forms of network governance (Granovetter, 1985). The premise being that networks of individual and organizational and state actors interact through formal and non-formal structures of social contacts coordinating the ways society is managed (Jones, Hesterly, & Borgatti, 1997; Rhodes, 1996). Malcolm (2008) notes that the overlap between Lessig and Rhodes can be seen in how the Internet is specifically governed through social and architectural processes that “guide users behavior online” (p. 20).

The mechanisms of governance can be used for coordinating at all levels of STSs, but I assume for this dissertation that the architectural mechanisms at the macro-level and the normative mechanisms at the micro-level remain relatively constant. I make this claim because the data I collect is only over a thirty day period, which is not affected by the long term changes generally implemented in Internet governance. Normative behaviors at the micro-level generally take time to develop. Thus, the likelihood of any major changes within the meso-level space occupied by organizations and individuals is unlikely to be dramatically altered other than

through their own decisions. I focus on the rule-oriented formal governance mechanisms used by organizations to coordinate the interactions taking place within a STS and how those rules relate to organizational outcomes.

Internet Governance

Internet governance scholars largely focus on macro-level processes examining international organizations and the structure of those organizations (van Eeten & Mueller, 2012). Similarly, Mayntz (2003) finds general governance theory research has not explored in detail the effects of coordination on collective behavior. The field of Internet governance is one particular example of the application of general governance theory.³ I examine this gap in the literature by looking at the mechanisms of Internet governance within a bounded STS (Facebook) where organizations function within a globalized governance framework, but also develop their own formal and semi-formal rules to coordinate behavior.

What is Internet Governance?

Internet governance is commonly defined as, “the development and application by governments, the private sector, and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the Internet” (WGIG, 2005). Theoretical analysis suggests that a multitude of governance mechanisms are needed as different problems require different responses when coordinating Internet resources (Bauer, 2007). Currently, the Internet is governed utilizing a multi-stakeholder process incorporating multiple perspectives in coordination, both technologically and socially,

³ For more discussion on the connection between governance and Internet governance see Brousseau, Marzouki, & Méadell (2012), DeNardis (2010), Hofmann (2005), Puppis (2010) and Mueller (2010).

the resources needed by the Internet infrastructure and actual use of the Internet. However, Internet governance has largely been dominated by a relatively small minority of elite technical actors that originated in the United States (Mueller, 2004).

Why does the Internet Need to be Governed?

The technological, economic and political problems arising internationally from the Internet and associated systems are an indication of the necessity for an Internet governance agenda. This governance is decentralized, involving actors from state, corporate, and individual interests, but also represent the networked collectives forming around the world within systems similar to Open Source Software (OSS) groups.⁴ The main coordination need for the Internet is the technical infrastructure, which is strongly linked to aspects of public good. Individuals no longer belong to just a nation and local entity, but recognize themselves as members of different collective groups that flex their collective power for desired outcomes.

Mueller (2010) argues that we must decide how to appropriately regulate these emergent systems, as there has been no complete government takeover or anarchistic state as previously believed, but that we must create what system we choose to live in. The basic questions underlying the decisions regarding Internet governance are: what kind of national authority do you want to live under, one national authority or a transnational collective authority? The second question is how the governance decisions are made, whether they are under a one dimensional authority with fully vested power or a peer-produced and collectively decided structure? Each of these questions Mueller (2010) argues are crucial for deciding how Internet governance will evolve. Many aspects of Internet governance (e.g., the Internet Engineering Task Force (IETF)) are examples of emergent rules and agreements. The Request for Comment (RFC) process is a

⁴ For an example of OSS groups, see Hintz and Milan (2009).

bottom-up form of consensus building (Braman, 2011, 2012) more in line with the peer-produced and collective structure. It seems that legitimacy of these forms of Internet governance is rooted in their function for users. The legitimacy issue is more in play at the level of ICANN, but as van Eeten and Mueller (2012) argue convincingly that is only one limited aspect of Internet governance.

At the root of the debate about a need for governance, is the fact that every human will participate in this information infrastructure without choice. Pavan et al. (2009) moves beyond the debate about whether or not the forms of governance are legitimate or correct in the current process and asks, “can non-technical emerging Internet governance related issues impact the very technical infrastructure framework if not through hard law tools” (p. 177). The involvement of individuals must happen through a common pool resource approach. Pavan et al. argue that the utilization of social commons and infrastructure commons through the Internet will provide ways to increase Internet governance opportunities for individuals. While this sounds like a good idea, the implementation of governance procedures at the global scale is still quite daunting.

Critiquing the Dominant Internet Governance Research Agenda

Van Eeten and Mueller (2012) disagree with the common scholarly conceptualization of Internet governance arguing for a broader definition and field of study. They perceive the definition of Internet governance to encompass technical aspects, but argue that the economic, political, and social aspects have largely been ignored. They highlight three reasons as to why the predominant paradigm Internet governance research is limited in scope: First, “participants in the Internet governance field take a distinctively global governance perspective on the topic” (p.

727). Clearly, the focus by Internet governance researchers on ICANN, International Telecommunication Union (ITU), and other international organizations has resulted in a narrow focus of the field resulting in a lack of research on the effects of policies on the organization or micro level. Second, scholars “think of governance as being produced by, or taking place in, formal organizations with explicitly institutionalized rules and procedures”. I agree with this notion because the literature seems to place legitimacy in the hands of the state and other international actors, but completely avoids examining the effects of those international decisions on local actors. For example, Take (2012) interviews members of ICANN, ITU, and WSIS and finds that people are fairly pleased with the regulatory processes and inclusiveness, but this is a biased sample that does not discuss the wider public opinion. The difficulty in measuring the effects of Internet governance on the micro and even meso level increases the difficulty in the task, but does not make it any less necessary. Third, “if one formally designates a venue for Internet governance and makes it open to all stakeholders, then it constitutes a form of Internet governance – regardless of how much actual authority over Internet operations its participants have” (van Eeten & Mueller, 2012, pp. 727-728). This third and final point articulates what we see in much of the world currently; ICANN is the only real governing body of the Internet with any real or legitimate power over the Internet. When there are discussions of distributing authority within U.S. Congress, there is a backlash over nationalistic interests and a lack of political will to include more international players (Kruger, 2013).

The role of organizations in Internet governance should be included in the focus of Internet governance research. The development of local broadband networks and city wide Wi-Fi rely on Internet governance at the international, state, and local levels. At least in the U.S., these systems are being developed at the local level due to private market failures of current

Internet service providers (ISP) (Goldsmith & Crawford, 2014). For local actors, international and global rules and conventions are beyond their system of influence and they take them as granted. One could argue that they are represented by their national governments, which act as their trustees, and by civic groups who have a public interest perspective related to local actors. However, the focus within Internet governance research does not seem to examine how potentially different decisions can affect individual users. Thus, the role of governing at local levels is becoming increasingly regulated by International and state policy that influences the decisions of local leaders, but without providing local leaders with any representation.

Where my Dissertation fits in

Conceptually, there are three different levels to Internet governance. These include macro-level, meso-level, and micro-level processes. In general, research tends to focus on the macro-level processes. The difficulty is figuring out how to apply the macro-level theoretical concepts to the meso and even micro level interactions. I place my dissertation in this connective space by positioning my work at the direct point of interaction that takes place between a local organization and individual Internet users.

At the macro-level there are arrangements for how to distribute and coordinate Top-level Domains (TLDs) and data sharing agreements. This macro-level is not seen or felt in any real sense by individual or organizational actors, but has affects nonetheless. Changes at this level constrain or enable certain coordination practices at the meso and micro levels.

Multinational organizations like Facebook or Google function between the macro and meso-levels of Internet governance. Google for example enters into data privacy agreements with the European Union. As another example, Facebook does not operate in China. These

organizations and nation-states like Google and Facebook or China can constrain or enable behaviors in a way that smaller organizations cannot. Due to the size, capacity, and use of Google, it has the potential to coordinate vast swathes of the Internet just by altering a search algorithm. Facebook can do the same by changing how an organization can setup a Facebook Page. Meso-level Internet governance creates additional enabling and constraining conditions for individual users. Actors within this level take for granted the higher-level rules of the game established by global Internet governance. The county I am studying is an example of meso-level governance. Oakland County must operate within the enabling and constraining elements of the global Internet governance regime, but also within the parameters of Facebook. Facebook parameters must be adhered to by the county if the county is to utilize Facebook as a medium for engaging with the public. The county then is able to constrain or enable individual users within the space afforded it by Facebook.

Individual users are the micro-level of the Internet. They do have some ability to coordinate the Internet, but primarily through norms or Internet etiquette. This behavior is coordinated by the other layers of the Internet, but largely goes unnoticed by the public. However, in certain instances, like the restricted access to many websites in China, the public is very aware of how the constraining factors of the Internet governance affects them.

Studying the effects of Internet governance, from a macro level is very difficult, but I argue that one can make connections between the high level coordination of the Internet and the meso-level. Organizations coordinate behavior as best they can while functioning in-between the high level layers and low layers of the Internet. They must use the norms and etiquette of individual users, but also work within the confines of Facebook, Google or the nation-state. Thus, by understanding how an organization at the meso-level coordinates itself within this

middle space and the effects that coordination has on micro-level interactions, I position my work to go beyond the macro-level only approach.

The Effects of Internet Governance

There are multitudes of ways to empirically study how governance mechanisms interact with other factors and influence micro-level processes. Interviews may be used to understand the effects of Internet governance regulatory decisions on state level Internet regulatory agencies. Alternatively, privacy and copyright policies are at the forefront of individual citizens minds, but the Internet governance field has largely ignored this area (van Eeten & Mueller, 2012), which could be studied using big data techniques understanding the spread of copyrighted material through bit torrents, assessing the relationship patterns of social media users and privacy violations through a survey, or utilizing network analysis techniques of local representatives in their use of social media to inquire their constituents on Internet governance topics.

Another avenue for examining Internet governance locally involves the multi-stakeholder processes that take place within local county governments. A county has multiple departments with varying arrangements around information technology (IT) use and policy creating a complex environment of governance strategies. If each department orchestrates its use of IT and Internet resources this creates duplication of services and wasteful resources, whereas the creation of a hierarchical structure for governing IT and Internet resources would create a more streamlined environment. However, the issue here would be the same as internal Internet governance, acquiring legitimacy for the acting governance body (Weber & Grosz, 2009). It may be necessary to understand what constituents of these governing bodies want through a survey or interview process and then initiate an experimental design and implementation phase

that allows for different governance strategies to take place. The more successful strategy then could be applied to higher level Internet governance regulatory organizations and issues.

Constructing a Theoretical Framework

To my knowledge, there is no existing theoretical framework in which I can position my dissertation. Therefore, I propose the following theoretical framework as a way to position my dissertation into the larger Internet governance literature. The framework, pictured in Figure 2, treats the Internet as a set of nested sociotechnical systems (STS) whereby the Internet is everything at the macro level; an intermediate layer is represented by bigger players and types of Internet technology like Google, Facebook, or Comcast. The meso or middle layer of the Internet is made up of organizations that have some ability to influence the macro-level coordination, but in reality must function within that layer and can dictate how individual users participate. Lastly, the individual user makes up the micro-level behaviors shaping the Internet. Van Eeten and Mueller (2012) point to issues that impact the meso and micro levels of society as being the gap in the literature. It is this gap that I situate my dissertation by focusing on how organizations at the meso-level specifically govern their use of social media, as part of the Internet. I test how that organizational social media governance affects individual user outcomes as a proxy to measuring macro-level Internet governance affects.

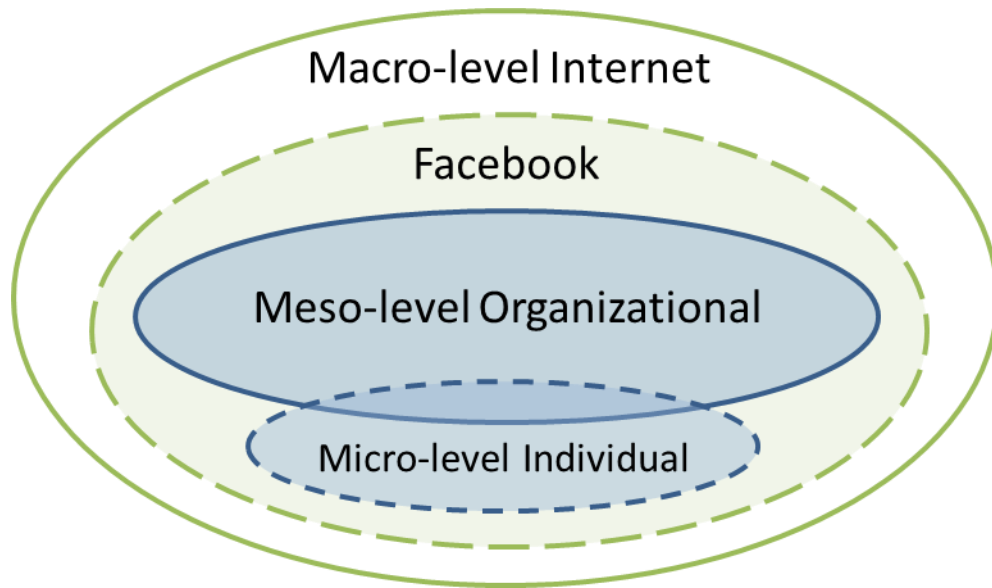


Figure 2 Organizational Social Media (Facebook) Governance Framework

Figure 2 above represents the three levels of the nested STS representing my proposed organizational social media governance framework. For each level of the STS, I label the scope (macro, meso or micro) and the primary entity (Internet, social media (Facebook), organization or individual). I specifically test the often tacit assumptions of governance theory that coordination leads to expected internal and external outcomes at these various levels of the system. Prior to discussing my research design for empirically evaluating part of this framework, I need to explain what I consider organizations to be and how I conceptualize organizational Internet governance or what I am calling, organizational social media governance.

Organizational Governance

Organizations like state and local governments or small to medium corporations operate within the context of macro-level Internet governance with very little ability to alter the architectural mechanisms coordinating meso-level behavior. These organizations operate within

the macro-level Internet governance. Organizations coordinate, using both formally and non-formal mechanisms, the way their organizational interactions take place within the boundaries of the STS used. These two types of organizational governance may not always be aligned, in which case either or both of them may be ineffective.

I define an organization as, “a generic term for any type of group or association of individuals who are joined together either formally or legally” (Phelps & Lehman, 2005). Organizational coordination measures are one form of implementing governance. Organizations function at the meso-level of society because they can sometimes participate in the formation of macro processes, but also directly engage with individuals at the micro-level. Organizations can also create formal mechanisms of governance that impact micro interactions.

Research on organizational governance is made up of several subfields. While many of these offer some generic insights, most are beyond the scope of my interests. For example, in the area of employment relations, organizational governance is defined as “the set of rules and processes by which employers govern employees” (Edelman, 1990, p. 1402). Another area is risk management and stakeholder management, defined as:

“governance processes deal with the procedures utilized by the representatives of the organization’s stakeholders to provide oversight of risk and control processes administered by management. The monitoring of organizational risks and the assurance that controls adequately mitigate those risks both contribute directly to the achievement of organizational goals and the preservation of organizational value. Those performing governance activities are accountable to the organization’s stakeholders for effective stewardship” (Hermanson & Rittenberg, 2003, p. 27).

Thornton, Jones and Kury (2005, p. 127) define organizational governance as “the mechanisms that firms use to coordinate economic activity,” which is in line with the work of Jones, Hesterly and Borgatti (1997). Rather than focus on a specific subfield I conceptualize organizational governance generally. I define organizational governance as, the formal and non-formal

mechanisms used by corporate, government, or non-profit entities to coordinate internal and external activities to assist in attaining goals.

Organizational Social Media Governance

The purpose of the literature review on organizational governance is to refine the notion of organizational “social media governance”. Organizations function at this meso-level and thus have the ability to dictate more macro-level processes, but also engage in micro-level ones. The organization relies on outside mechanisms of coordination from the macro and micro levels, but can initiate some level of coordination through formal and non-formal processes pertaining to the use of technological platform. In this case, social media offers a specifically useful medium whereby Internet governance is actually taking place at all three levels of society. Organizations are quickly moving to understand risks and opportunities of social media (Roohani & Attaran, 2014), employee and organizational relationships in light of social media (Sánchez Abril, Levin, & Del Riego, 2012), the potential value of employee use of social media (Vaast & Kaganer, 2013), and other aspects of social media use (Bonsón, Torres, Royo, & Flores, 2012). Prior to discussing organizational social media governance, the reader first needs to understand what I mean by social media and how it is specifically nested within the Internet as an STS

Defining Social Media

Social media is a subset of the Internet, which is a macro-level STS where organizations operate. The architectural design is the mechanism coordinating organizations and individuals within the social media STS. Researchers use various definitions of social media. Kaplan and Haenlein (2010) define social media 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 (UGC)” (p. 61). Social media is also defined as a tool for communication, which “1) allows individuals to more easily access and use human networks; 2) expects interactive rather than broadcast communications; and 3) is powerful because it uses not only text, but video and audio as well (“multimedia”)” (Landsbergen, 2010, pp. 143-144).

Landsbergen’s (2010) definition point two is important in this dissertation. Social media and governance either allows for more interaction between the governing organization and users or limits interaction. The goal of the organization versus the goal of the user may differ and thus lead to contrasting priorities when using social media.

The assumption that social media is interactive in the above definition suggests that any form of online media that is not used for interactive purposes is not considered a social medium, but an alternate form of mass communication. Contrasting opinions occur within some of the literature as to whether or not social media increases inclusion of users within organizations (Landsbergen, 2010). Researchers have also noted only certain members of the population can or are willing to participate with organizations in the context of social media potentially excluding others (Lampe, LaRose, Steinfield, & DeMaagd, 2011). Lampe et al. (2011) define social media as “a range of tools and services that all enable direct user interaction on computer mediated environments” (p. 2).

Carr and Hayes (2015) provide the most recent and comprehensive definition. They define social media from a theoretical approach rather than thinking of social media as a tool (Carr & Hayes, 2015). Their definition offers an interesting perspective, ignoring the type of content as a specific characteristic of social media. Carr and Hayes also focus on “Internet based” communication, which is a fairly important distinction specifically for governance. Thus,

I use the following formal definition of social media, “Internet-based, disentrained, and persistent channels of masspersonal communication facilitating perceptions of interactions among users, deriving value primarily from user-generated content” (Carr & Hayes, 2015, p. 49). Social media channels are asynchronous and thus enable continuous participation. Users can also interact with computers or other types of non-human actors that create perceptions of interactions, which users deem valuable. Thus, organizations use social media to create perceptions of interactions in a persistent channel where users can engage the created content.

Defining social media governance, let alone organizational social media governance is needed. Linke and Zerfass (2013) define social media governance as “the formal or informal frameworks which regulate the actions of the members of an organization within the social web” (p. 274). Other researchers define social media governance by the specific type of organization, which I will address further in the next paragraphs. For my purposes, I define organizational social media governance from the culmination of Internet governance, organizations, and social media definitions provided previously. Organizational social media governance is the formal or non-formal mechanisms coordinating the internal and external social media interactions between non-profit, government, or corporate entities and individual or collective individual actors.

Organizations, Social Media Governance, and Outcomes

To my knowledge, there are only a few studies that examine the actual outcomes of organizational social media governance. However, there is a broad literature on how social media should be used to achieve desired outcomes (Aral, Dellarocas, & Godes, 2013). I want to first explain prescriptive approaches concerning organizational social media governance. I will then explain what researchers actually found.

Examples of Social Media Governance

Common among corporate organizations is the practice of using existing policy to determine social media governance, but Káganer and Vaast (2011) recommend creating governance mechanisms based on customer and employee interactions. Káganer and Vaast (2011) identify three categories within current corporate social media governance policies, which are 1) risk mitigation, 2) guidance on social media use, and 3) generating business value (Káganer & Vaast, 2011). Interestingly, there is no mention of whether or not customers should be involved.

An alternative to top-down social media governance is developing governance with users. According to Daou, Karuranga, Thiam, Mellouli, and Poulin (2012), a bottom-up approach helps increase adoption of e-government services in remote areas by allowing local inhabitants to be more involved in the development of governance strategies (Daou et al., 2012). In development of governance policies and use of social media, the U.S. is an example of a country that could harmonize prior information policies and constitutional ideas in order to “foster an engaged and informed public...extending services and resources to where the public is...participatory democracy...transparency and openness...equity of access...ensuring permanent access for an informed public” (Hansen, Bertot, & Jaeger, 2011).

Not-for-profits (NFPs) are also realizing the changes within their organizational governance. According to Artz (2011), NFPs need to leave behind the current model of governance structure that involves pushing ideas and programs to the public for them to engage in, which is another top-down approach. The new approach utilizes social media as “platforms providing connections and administrative, financial, legal and project management support that

will allow citizens to provide the content to take self-organization to a much more powerful level” (Artz, 2011, p. 120).

Prescriptive Approaches to Organizational Social Media Governance Practices

There has been some attempt by organizations to apply older communication policies to social media use. As organizations have realized the benefits of social media in generating value, the organizations are moving away from the classical risk management strategy of social media (Vaast & Kaganer, 2013). In response to the out dated regulations affecting governance through social media, there are three issues that need to be addressed:

“the need for alternative dissemination strategies for access to and dissemination of government information and services; the need for ubiquitous access to internet-embedded information content; and the need to consider records management, archiving, and preservation” (Bertot, Jaeger, & Hansen, 2012, p. 33).

Thus, Bertot et al. (2012) suggests that social media for governance must be utilized in different ways from past mass communication technologies, which also requires access or provided access and education on use of social media. While several papers have examined the role of social media in governance (Bertot et al., 2012; Hansen et al., 2011), the recommendations are fairly mundane. Specific prescriptions include calling for new legislation that is grounded in the founding principles of our democracy. However, there are no studies, to my knowledge, on the effectiveness of one social media governance strategy over another.

An example of governance within social media is examined by Leskovec, Huttenlocher, & Kleinberg (2010), who find that Wikipedia’s strategy for electing Admins for the site are largely based on the relationship between voter and candidate, whether or not they have personal communication, but also on prior voting decisions and election outcomes. While this is not directly related to the governance of social media, it is an interesting analysis of how to measure

participation in the governance process. A small minority (8,298 unique users from 2004 to 2008) of Wikipedians even vote (Leskovec et al., 2010), let alone edit the website, which suggests that in order to encourage participatory governance, social media websites must do more to increase interaction.

Ingenhoff and Koelling (2012) perform a cross-country analysis by looking at public versus private media company communication practices regarding media governance and social responsibility. Their findings suggest that media governance issues are more likely to be communicated by public media whereas corporate social responsibility issues are more likely to be communicated by private media (Ingenhoff & Koelling, 2012).

The approach to social media governance within organizations seems to follow a hierarchical structure. However, a top-down approach to governance, as discussed previously, may not work well for the Internet due to the complex network of actors. The Internet is a macro-level STS, as is social media; organizations operating within the framework of the Internet are capable of and already demonstrating ways of governing their actions within these spaces. The question, which I am addressing in my dissertation, is whether an organization's social media governance has an effect on outcomes.

Chapter 3: Local Government as a Case Study

Oakland County, like other organizations, uses social media to reach certain internal and external purposes. To better align actions a set of governance measures was adopted to guide employees. The specific objectives are not self-evident and this chapter is dedicated to describing the case study conducted to better understand what these objectives are. I then empirically test those objectives using in the quantitative research approach. The purpose of this chapter is to develop a set of internal and external organizational outcomes regarding the use of social media by that organization. The basic idea I have outlined thus far is that Internet governance is often assumed to have some effect on individual actors, but in order to understand that a link must be formed between the higher level governance mechanisms and the lower level behaviors. A case study specifically allows me to do this because I can develop a set of testable organizational outcomes. The outcomes are then used to test my research question that examines the relationship between governance and outcomes.

Oakland County

Oakland County has higher income and educational attainment levels than most U.S. counties and provides an excellent case study for organizational Internet governance. According to Philipps (2012), Oakland County has been using social media since 2009 and was one of the first counties in the U.S. to initiate a social media governance policy. The county is a cutting edge governmental organization having won numerous accolades over the years from a variety

of digital government organizations.⁵ In 2014 alone, the county won cybersecurity and best of web awards from the Center for Digital Government. The county seems to be an ideal case for studying Internet governance at the micro level because of their record on technological usage.

The county has a hierarchical organizational structure and is made up of ten different elected bodies including the Sherriff, Board of Commissioners, County Executive Officer, Water Resources Commissioner, Circuit Judges, Prosecuting Attorney, District Court Judges, Treasurer, Clerk/Register of Deeds, and Probate Judges. Within each of these elected bodies, certain personnel appointments are made to county positions who then head the various sub-units of the county. Sixty municipalities from rural and urban environments are present in the county. According to a 2013 estimate, the population of the county was 1.23 million residents, consisting of primarily white (73.7%) and black (14.4%) racial groups, with 6.3% being Asian (2013 estimates). Formal education levels in the county are higher than the state average. For example, 43.1% of individuals over age 25 have a bachelor's degree in the county compared to 25.9% in the state (2009-2013). From 2009 to 2013, the annual median household income for the county was at \$65,594, approximately \$20,000 higher than the state median.⁶ By demographics alone, county residents could be deemed likely to be both civically engaged with their government and more likely than the average person to use new technologies like social media. Higher education levels and higher income levels both tend to associate with higher levels of social media use (Perrin, 2015) The county's use of technology and the high residential income and education make the county an ideal place to examine the effects of Internet governance at a meso/micro level.

⁵ Awards won for information technology can be found here:

<http://www.oakgov.com/it/Pages/about/awards.aspx>

⁶ Information for the Oakland County and Michigan gathered from U.S. Census data at:

<http://quickfacts.census.gov/qfd/states/26/26125.html>

Case Study Research Design and Methods

The case study method is an ideal way to utilize exemplars of difficult to test theoretical ideas (Flyvbjerg, 2006). The case study approach is used widely, defined as, “document(ing) a particular situation or event in detail in a specific sociopolitical context” (Simons, 2014, p. 1). For my dissertation, I treat the county and its social media governance strategy as the scenario in which I examine how organizational social media governance affects organizational outcomes. In this case, I am interested in how Internet governance by an organization leads to changes in the outcomes within the organization and with communication with the general public.

The archival documents were gathered from the county websites and through email with county employees. The interviews were conducted in-person with pre and post interview questions depending on the role of the employee. The documents and the interviews were coded using an iterative coding process. The benefit of content analysis of archival documents and interviews in a mixed-method design is that the method is relatively flexible (White & Marsh, 2006). Saturation was likely not achieved in the interviews alone, but the interviews with the documents create several themes used in the quantitative method of my dissertation.

Document Description

In 2013, the county implemented two specific documents that dictated how county representatives could use and participate in social media specifically. The county’s social media governance policy was implemented in January 2013. Prior to the implementation of this county-wide policy, the information technology department designed and implemented a Social Media Operating Procedures Handbook (Oakland County Information Technology, 2010). The Social

Media Policy (SMP) was passed by the county commissioners and broadly defines how and for what purposes county representatives and employees may use social media in county business, but also regulates personal use during business hours. In short, the SMP outlines broadly five aspects of social media use for county purposes, which includes what constitutes social media and examples of websites, how to setup social media accounts through the county, the process for using social media on behalf of the county, what are considered organizational uses of social media versus personal uses of social media, and the legal rights and responsibilities of county employees, citizens, and the county itself.

The second document, authored in June 2013, was the Integrated Social Media Strategy & Recommendations for Departments (ISMSR). The ISMSR provides recommendations and guidelines for county use of social media, but not necessarily mandates or requirements.

According to the conclusion of the ISMSR, the county can utilize an integrated social media strategy between and among the county, departments and divisions. This integrated social media strategy ensures that “consistent branding, strategic content, and increased connections...allow Oakland County and it’s Departments to achieve all of their social media goals by turning their digital citizens into brand advocates” (ISMSR, 2013, p. 12). Based on the ISMSR, each department has separate social media goals, but these are not available, and are encouraged to follow the recommendations of the document. The goal of the strategy, however, appears to be driven towards information dissemination rather than interaction with individual citizens, as the county wants to create brand advocates rather than digital citizens.

County departments are largely responsible for their social media goals and strategies, but the ISMSR provides a set of adaptable guidelines for appropriate use. One aspect of the ISMSR that creates unity across departments is the required meeting each new social media

account holder must have with the eGovernment team. The social media strategy session provides information on the larger brand strategies of the county and gives the new social media account holders guidance and direction in moving forward. The session seems to act as a unifying point for any new accounts. This one mandate creates the opportunity to alter how social media will be used by county employees in future interactions with other departments/divisions also affecting citizen engagement on social media.

The ISMSR established three broad guidelines across county services and departments that are potential sources of micro level change between the departments that will have impacts on the individual citizens. According to the ISMSR (2013), the three strategy guidelines are:

1. Content Strategy – relevant and strategic content guided by the parent brand...can be shared and disseminated across and between any and all departments, divisions, or brands.
2. Connection Strategy – utilizing the network reach of other...social media presences to appropriately disseminate content to target markets.
3. Engagement Strategy – departments, divisions, and brands will interact with one another on social media through shares, likes, and comments and other appropriate sources

The above strategy guidelines influenced the social media communication practices of the county. Their effect can be operationalized through social media interactions.

Based on these guidelines, in the next section I develop a set of testable hypotheses examining how this specific case is potentially useful for illustrating micro-level Internet governance at work. Each of the strategies was designed to achieve department goals for social media use. Broad external metrics are highlighted in the ISMSR that operate as useful overall metrics for the social media governance strategy. The broadly defined goals established for each

department encompass increasing connections, engagement, and citizen interaction and satisfaction (ISMSR, 2013, p. 8).

Semi-structured Interview Description

Three interviews were conducted on June 1, 2015 at the county offices with four individuals representing various levels of management. The interviews followed a semi-structured format allowing for deviations in the interview should an interesting point arise that merits additional discussion. Five primary topics were covered during each of the interviews including the employee's title, roles, and responsibilities as they pertain to the organization, specifically regarding social media. The second topic focused on the process of developing the SMP and ISMSR and the employee's role in that process. Third, questions explored the internal organizational expectations regarding the effects of the policy and strategy on the county. The fourth topic examined internal compliance with the policy and strategy. Lastly, the external goals or public facing goals of the county were discussed and whether or not those goals were achieved.

The interviews were designed based on in-depth reading and exploration of the SMP, ISMSR, and monitoring the current social media accounts belonging to the county. The in-depth knowledge I possessed gave me the latitude to ask questions regarding very specific aspects regarding the social media usage of the county. The interviews also confirm some of my assumptions based on my observations of the county's social media behavior.

Qualitative Analysis

Here, following a general description of the employees, I present three basic themes from the documents and interviews that were garnered through an iterative coding scheme. The interviewees are not described in-depth and quotes are avoided to increase anonymity. Information from the SMP or ISMSR is added where relevant.⁷

Interview Participants

Each of the participants had some role in the formation, development, or execution of the SMP and ISMSR. The participants have also been involved in directly governing the social media use by the county and have extensive knowledge about the social media use at the county. They represent ideal candidates for information regarding the two formal documents, but also the daily social media practices taking place across the county. Two individuals were interviewed in a joint session, while the other two were individual sessions.

Goals of the Policy and Strategy

The SMP developed out of a need for better organizational memory. Three of the interviewees indicated that social media was a potentially necessary tool developing in 2009-2012, but it was clear that problems were arising. One common issue occurred when student interns would create social media accounts representing the county and then leave with the login credentials.

Similarly, when employees left to go on vacation or for other jobs there were accounts on social media were not monitored. These scenarios left the county with various social media accounts on the Internet without any way of accessing them. The SMP confirms the language

⁷ More information regarding the interview transcripts can be requested from the author.

and ideas expressed by those interviewed. Specifically, regarding the account creation and account credentials, the policy directly places the information technology department as a holder of that information. The SMP (p. 1) states that in order to use social media on behalf of the county:

“...you must contact the County’s Information Technology Department to establish a social media account through the I.T. Service Center. I.T. must approve the social media site. Only social media sites approved by I.T. may be used on behalf of the County. The I.T. Department will retain password and log-in information for all County-sponsored social media. You must follow the I.T. standards for managing County-sponsored social media sites.”

The SMP also developed out of a need for consistent messaging and naming conventions for the various social media accounts. The county employees indicated that as a response to the lack of standards for labeling accounts or sending out Facebook messages formal coordination needed to be implemented.

As a result of the need, naming conventions and consistency were established as a requirement in the SMP. The SMP (p. 1) states that I.T. will develop and manage standards to be followed by county social media accounts “to ensure the County has a consistent image on its social media sites, refer to I.T. standards for the look and feel of County-sponsored social media sites.” The 2010 social media operating guidebook helped to alleviate the lack of a SMP during the development of the policy from 2010 to 2013. However, the operating guidebook was only a recommendation of action and mostly came from the Department of I.T. This informal document was kept as a temporary and informal guide prior to establishing the formal SMP.

Beyond the need for consistent content and control of accounts online, there was also a need for brand protection and employee protection. The SMP has several sections on protecting employees and county brands. For example, individuals working at the county must say who they are when posting on behalf of the county. “When you post on behalf of the County you

must identify your position with the County” (SMP, p. 1). The county further protects itself through identifying servicemarks and contact information. The SMP states, “you must use a County-owned servicemark exactly as it appears in the County’s Media Management System” (p. 3) and “all County-sponsored social media sites must clearly identify that they are maintained by Oakland County and prominently display County contact information” (p. 1).

The interview participants clearly articulated that the SMP was the necessary framework and first formal mechanism in coordinating social media at the county. The ISMSR was designed to as the tactical guide and basic how-to manual. The ISMSR states that the challenges facing the county were similar to interviewee statements, which included “...inconsistent content messaging, no brand recognition, and lack of cross communication” (ISMSR, p. 3).

The SMP developed more out of necessity than proactive thoughts about future needs. The SMP also took quite a while to get implemented at the county level. The interviews suggest that the document (SMP) was a necessary step for the county that the “...mechanisms are in place...” to handle any problem or need in an official capacity. The ISMSR was difficult to separate from the creation process with the SMP. It appears that the ISMSR was created in conjunction and as a supporting framework for the SMP. Both documents are viewed by all participants as being important steps in the social media governance process.

Internal vs. External Goals

Internally the county wanted to create a centralized authority for creating social media accounts, storing account credentials and formalizing content creation. Externally the goal of the policy and strategy was to create a coherent and unified image of the county that generated engagement, which interviewees called, interaction, engagement or conversation. The goal of

engagement described by one employee was to engage citizens through the umbrella strategy and within brand. Alternatively, another participant described the goal of the SMP and ISMSR as creating an environment on social media where government was given a human perception. The goal was to converse with citizens in authentic conversations. One employee saw the goal as creating uniform communication.

The ISMSR established a set of internal and external goals, broadly defined, around the needs of the county for social media use. The strategy identifies one primary goal of creating brand advocates of citizens. According to the ISMSR,

“An integrated social media approach will ensure consistent branding, strategic content, and increased connections. With proper implementation, this approach will allow [the county] to achieve all three social media goals by turning their digital citizens into brand advocates” (p. 8).

This primary goal is supplemented by a set of internal and external goals within the strategy document. The internal goals listed in the ISMSR include, “increase social media presence, increase cross-departmental communications, and increase employee understanding and satisfaction of social media” (p. 8). The external goals in the ISMSR include, “increase connections, increase engagement, increase citizen interaction and satisfaction” (p. 8).

The difference between the employees’ goals and what the ISMSR communicates is interesting. The ISMSR defines engagement as,

“With an integrated approach, [redacted], the Departments and Divisions will interact with each other by liking, commenting on, and/or sharing content. They will also interact with approved external sources, such as the media, organizations, etc” (p. 11).

This definition does not actually mention engagement with the public, but engagement among social media presences controlled by the county. What is noticeably absent from the strategy is a focus on how to mobilize citizens in order to create that engagement that will lead to brand

advocates. This is also absent from the interviewees thoughts on defining and operationalizing engagement.

Compliance with the SMP and ISMSR

The goals of the SMP and ISMSR may have been created in the best interests of the county, but getting cooperation among the various departments, elected officials, and individuals seems to be an ongoing process, even after almost two years of work. Generating compliance internally has been somewhat achieved, but still some difficulties remain, while the external compliance and success is almost impossible to examine quantitatively. However, the strategy was effective internally as "rogue" accounts were cleaned up or removed. If someone was not willing to delete or relinquish control of an account the policy could be used as an enforcement tool.

The SMP, according to county employees, allowed for the deletion of accounts and bringing accounts up-to-date through a formal process. The ISMSR helped to create more effective messaging according to interviewees. "We closed probably four different accounts," according to one interviewee, in reference to closing non-compliant social media accounts. However, interviewees noted some difficulty in achieving that compliance when social media account managers were reluctant to give I.T. direct access and control over the accounts. For example, some social media account managers did not want to comply with the SMP because they saw no advantage.

There were mixed opinions as to the overall success of the strategy. One interview participant argued that Oakland County now had a much better handle on the current social media accounts, the brands and logos being used, and fewer new undocumented accounts.

However, another employee still saw accounts being formed apart from I.T. and not sharing login credentials. The pieces of compliance ignored most include, I.T. creating the actual social media account and sharing account credentials.

The most interesting aspect of compliance was that the policy was rarely used in order to force someone to do something. Other mechanisms were used prior to using the policy as a way to coordinate behavior across the social media accounts. For example, developing relationships and informal requests were used first rather than mentioning the policy. This gives some indication that the policy is a relatively weak mechanism of governance.

Overall Effectiveness of the SMP and ISMSR

The participants vary in how they think about or quantify effectiveness of the SMP and ISMSR. The ISMSR makes no mention of specific ways to measure the goals set forth, but does mention individual department goals being necessary to establish metrics for effectiveness. The county employees could speak to examples of success or effective use of social media, but not something that was tangible or retrievable at a larger scale.

The SMP and the ISMSR do not actually quantify what is meant by engagement, but I can interpret what it might mean based on some of the responses. For example, one person said that Facebook shares were more valuable than any other form of engagement because it would increase content lifespan and reach a wider audience. Another employee thought of successful engagement as the number of service requests the county could handle through social media. However, no clear explanation of what engagement meant or how to generally quantify it was produced other than through anecdote or individual events. Each interviewee viewed the

behavior of engagement in a different way, but one participant summarized overall effective engagement best:

“Engagement is any time that someone on a digital platform, Facebook, Twitter, LinkedIn, Pinterest, Instagram, actually engages with our content, whether it’s by liking it, commenting, sharing, or the various forms of that. That would be engagement.”

Social Media Moving Forward

Two perspectives were given by interviewees on the coordination needed for future development of social media use. First, that more units in the organization are involved in working towards a higher level strategy. Second, that there is more coordination of customer service being offered on social media with regard to overall organizational resource needs.

The SMP is a weak mechanism for governance. While each interviewee indicated that the policy led to the deletion of accounts not recognized by the county, it was still considered only one tool for coordinating behavior. For example, one participant described the weakness of the policy as this:

“Where we probably need to do some work is a policy is a policy. Like anything else it’s words on paper. Really to do and bring meaning to it you have to sit down and have conversations with people about it that they understand and have buy-in.”

The organization is struggling with what they want from social media and how to figure out if they have achieved it. The hierarchy of the county through separate elected individuals creates a sense of separate, but connected, moving pieces trying to achieve similar goals. Moving forward with social media in the county is likely to require more relationship and individual meetings to develop uniformity across social media within separate spheres of influence.

County Social Media Governance Outcomes

The qualitative data from the SMP and the four interviews suggests that the primary goal of the county's social media governance is the interaction and engagement of county government officials with citizens of the county through social media channels. To achieve this goal, the county initiated a formal policy to limit and restrict the creation and spread of social media accounts not permitted by the county. By limiting and removing some of these accounts, the county has created a more consistent, credible, and trustworthy social media presence. If a member of the public should go to any social media account they will know by the look, feel, and style that the account is most certainly representing the county.

Content strategies are formed to share and promote content to potential target audiences of interest. Each department's content strategy is informed by the mission of the department, but also the greater goals of the county. Departments must make decisions about how and when to share relevant content that is guided by the larger county strategy. However, departments not in compliance or working within the ISMSR may be using their own strategy. Thus, each department will likely never be fully out of compliance with the policy or strategy of the county, but will likely be within some spectrum of compliance.

In general, the outcomes both internal and external to the county government should be able to absorb some lack of compliance and I should be able to see some effects of the social media governance strategy occurring across social media accounts. Thus, in general, the goal of my dissertation is to see differences between the compliant versus non-compliant accounts that occur even when controlling for other message characteristics. My basic hypothesis, which I will formally introduce in Chapter 4, is that more compliant county Facebook accounts will have better outcomes aligned with county goals than non-compliant accounts.

Some social media accounts in Oakland County are fully compliant with these policies, while others are not. There are a range of factors that could be attributable to these differences of compliance. One factor that appeared in the interviews was that county political units tend to create different incentive structures for following certain policies. For example, in Figure 3 below the Sherriff's office operates under a different elected official than does the County Executive Office. This figure is meant for illustrative purposes and only three of the six county wide elected bodies are shown, for a complete Oakland County organizational chart see Appendix 3.

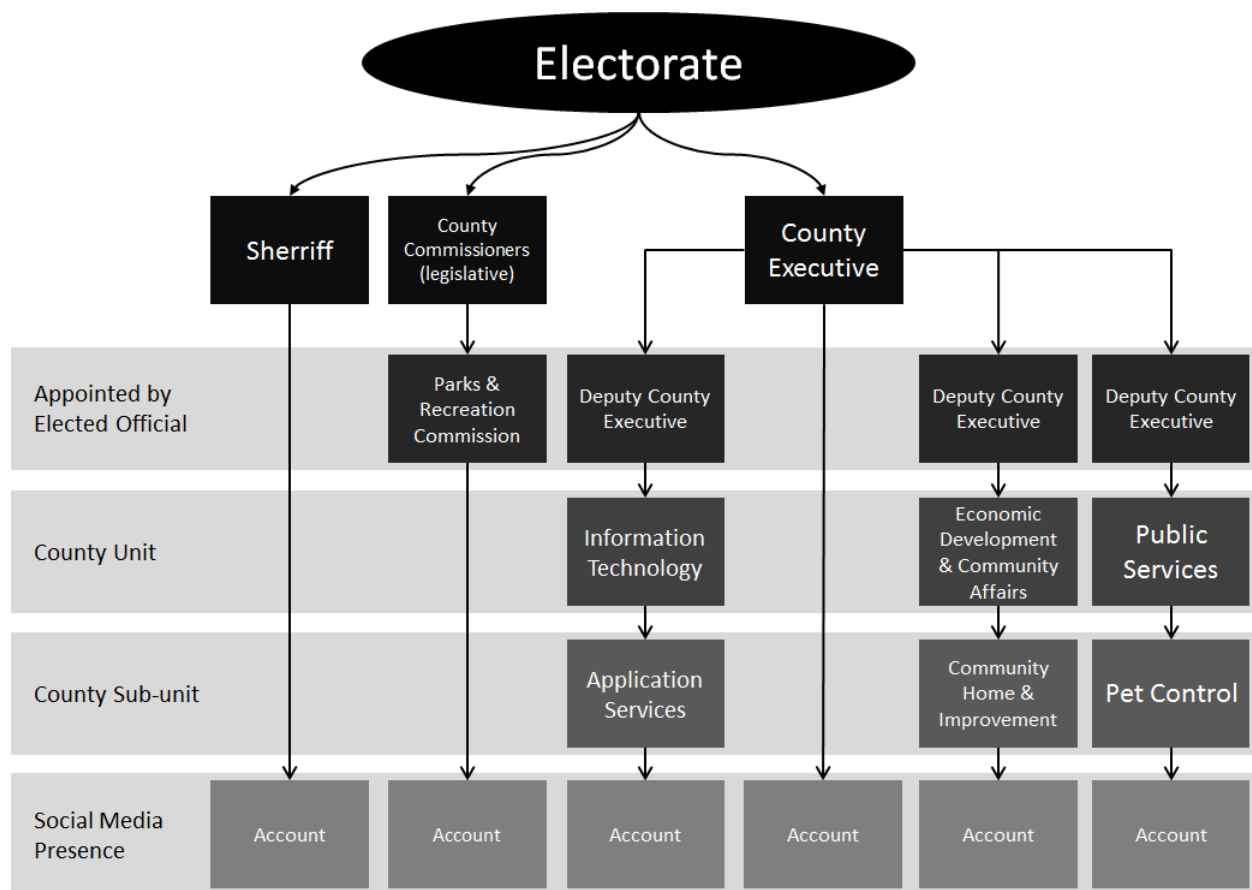


Figure 3 Example County Social Media Organizational Chart

While the county represented in Figure 3 has six county wide elected bodies, each of those bodies operates relatively independently. Thus, the Department of I.T. may have very little it can do to force the Sherriff or Parks and Recreation to adhere to pieces of the policy, without directly demanding adherence.

I first present the internal outcomes as a result of my case study analysis and follow with the external outcomes. The internal outcomes represent what happened within the county organization in response to the social media governance and would not be known to the public. The external outcomes are specific actions that the public would do as a response to the organizational social media governance. The internal outcomes are:

1. Social media accounts sanctioned through Department of Information Technology.
2. Passwords and usernames of county operated social media accounts shared with I.T.
3. Consistent brand logo, disclaimer, and name usage across county social media accounts.

The qualitative evidence demonstrates that internally the county has already made some strides towards achieving the internal outcomes. The effect of social media governance on external outcomes is more difficult to measure.

The interviews and document analysis show very little evidence as to why the county would expect increased engagement from the social media governance strategy of the organization. However, I can interpret from the interviews and documents that a trusting, credible, and consistent design across all social media presences is expected to generate greater engagement from the public for two reasons. First, that the design of the accounts instills usefulness and trust with the county. Second, when an account is designed so users think it useful and trustworthy then they are more likely to engage with that account.

Account wide engagement is a different beast than message engagement. Particular message content had very little to do with the SMP and ISMSR. Specific messages are expected to follow general social media engagement trends. Richer content, more targeted, and entertaining content will generate more engagement. The governance test comes when the more compliant accounts generate more engagement, while controlling for message level characteristics, than less compliant accounts. Thus, I propose the following broad types of external outcomes of the SMP and ISMSR (with specific measures to be discussed in Chapter 4):

1. Increased engagement between the public and county officials through county operated social media accounts.
2. Increased engagement between county operated social media accounts.

Oakland County's social media governance fits within the wider framework of Internet governance at the macro level. Oakland County must adhere to the technical architecture, and the resulting affordances emerging from higher levels of Internet governance. The county can exert some coordination over the local Internet infrastructure and providers, but is largely at the whims of macro-level processes. Oakland County can coordinate how it utilizes certain websites, like Facebook or other social media platforms, and their own website. These Internet governance practices take place at the meso-level. Oakland County can choose how to engage and what type of engagement occurs within the confines of the chosen social media. Thus, the SMP and ISMSR are formal rule-based mechanisms meant to coordinate behavior by the county, but also the engagement that occurs with the county's social media accounts. These accounts can encourage or discourage certain types of behaviors on their social media of choice. For example, a Facebook account operated by the county can create mechanisms that limit the types of

interaction on the account page. The county account could also set a policy, like the SMP, that describes behavior that is allowed when using the county's Facebook page.

The qualitative evidence demonstrates that Oakland County was able to internally achieve some success through the SMP and ISMSR. The county removed rogue accounts, created a centralized way of keeping account credentials, and streamlined brand logo consistency and credibility. Some accounts are still non-compliant with the SMP, but they are moving in the direction they want. The county hopes these changes internally would lead to the external or expected outcomes of engagement from the public and engagement between organizational social media accounts.

Chapter 4: Organizational-Level Governance: Theory and Hypotheses

Through various mechanisms of governance, organizations and individuals interact with one another within each level of an STS. Social media is an STS which affords the social and technical interactions of individuals and organizations. In the following section, I examine the micro-level processes occurring within the social media STS. I first examine how organizational decisions impact individual engagement on social media, but also how the collective micro-level responses on social media lead to organizational outcomes. The primary coordinating mechanism of individuals on social media is normative. Individuals collectively coordinate themselves through ideas of what should be and what should not be done on social media. Invariably, users bring these notions of behavior into their interactions with organizations. Both individuals and organizations must function within the architectural mechanisms of the Internet and specific social media website being used.

Collective Individual Engagement with Organizational Practices

My goal is to conceptualize the collective individual online engagement of social media users as potential participants in Oakland County's governing process (Ellison & Hardey, 2013) rather than simple consumers. Organizations factor the collective responses of individuals into guiding future use of social media. Feedback for organizations can be collected through individual users engaging with government social media accounts, following a corporation on Twitter, or tagging an image on Flickr related to your volunteer work.

Social media provide organizations with social indicators of individuals through a profile, which can both increase and decrease transparency and engagement (Bennett, 2012). Utilizing

the social media profile features, organizations must be aware individual users can selectively expose themselves to whatever they choose (Holbert, Garrett, & Gleason, 2010). By choosing to engage with an organization social media account, an individual is making a decision similar to that of consumer purchases (Micheletti, 2010), providing feedback to the organization through posting, liking, or sharing content (Scammell, 2000). The social media STS gives organizations a way to measure, to some degree, the effectiveness of a certain social media governance strategy or goal.

The difference between former mediums of engagement (television, radio) and social media, is that social media is a hyper networked social environment where organizations and individuals interact and engage in a plethora of ways. Individuals are part of a networked environment (Wellman, Quan-Haase, & Boase, 2003) that is changing based on the engagement choices of selective exposure (Messing & Westwood, 2012). As individuals and organizations choose to build and engage with these online social networks, the shape of the network will alter the decisions of other individuals to engage with organizations. Individual behaviors makeup the behavioral patterns seen in these online spaces (Micheletti, 2010; Scammell, 2000).

The type and composition of the individual's network will directly affect how social media engagement occurs. Based on research around context collapse, the more separated an individual's network the more likely that individual is to only interact or propagate content suitable for the weakest connection (Marwick & Boyd, 2010). Thus, an individual may be unlikely to interact with content in what is seen as an online public space. The individual will limit their interactions with organizations based on the cohesion of their networked contexts (Brooks, Hogan, Ellison, Lampe, & Vitak, 2014). Thus, the content of messages created by the organization will alter how and to what level an individual would engage that content. Informal

normative mechanisms will likely play a role in governing the way in which social media engagement occurs.

My point is that individual users at the micro-level of Internet governance will largely coordinate by emergent norms through selective exposure, the profile they develop, and the networks they create. Each of these aspects are beyond the control of organizations to govern, but are also bounded by the macro-level architectural mechanisms of the Internet. Thus, organizations may need to develop social media governance strategies that account for governance beyond their control at the micro-level.

The county uses different forms of governance to address the same perceived problem. The perceived problem is uncontrolled and inconsistent communication practices through social media. In response to this perceived problem, Oakland County implemented a variety of forms of governance, but most noticeably the SMP and ISMSR. These two documents were formal rules initiated as a first step in coordinating the Oakland County departments, agencies, staff and other units on social media. As the case study shows, the formal policy and strategy were relatively weak mechanisms. To achieve the desired outcomes of the policy and strategy, the county employees engaged in additional tactics to achieve coordination.

In this chapter, I focus on the question of whether the changes initiated on social media, based on the county policies, might lead to a change in civic engagement. The theoretical reasons I provide below do not represent the county's position, but my interpretation of the situation. I also identify two hypotheses from the literature and case study, which are my contributions to the research on organizational and Internet governance. I first outline an organizational social media governance framework as a conceptual guide for my dissertation. I then focus on my proposed hypotheses as they relate to the case study. I then define my conceptual terms. Lastly, I discuss

why the county's social media governance at the meso-level could theoretically lead to micro-level interactions.

Organizational Social Media Governance Framework

As mentioned in Chapter 1, the organizational governance literature points to mechanisms that coordinate the behavior of and affect changes in the behavior of employees (Edelman, 1990), clients or consumers (Hermanson & Rittenberg, 2003), and other organizations. The county believes the implementation of the SMP and ISMSR led to sets of internal and external outcomes, primarily outcomes of engagement with the public and engagement between county operated accounts. Oakland County does not necessarily purposefully employ all the various forms of governance, nor do I want to attempt to discuss all of them in relation to this study. Thus, I focus on the formal rule-based mechanisms employed by the county because these are the most understood, but also quantifiable.

The specific governance mechanisms adopted by Oakland County can be considered effective if the formal rules, in the form of the SMP and ISMSR, have a measureable impact through increased engagement. The effect of the governance is likely to vary between intra-organizational social media presences. A social media presence is a social media account operated by a department, agency, unit or employee of the county that is used for county related purposes. The more social media presences aligning with the larger organizational rules will allow for empirically testable outcomes. The county social media accounts will alter their social media practices, which will then lead to a change in engagement between the county and the public. Figure 4 illustrates this framework below. The left side of the figure illustrates the low compliance of social media accounts prior to the implementation of the governance mechanism,

which in this case are the SMP and ISMSR. The right side is what happens to engagement with the public overall after social media accounts have higher compliance.

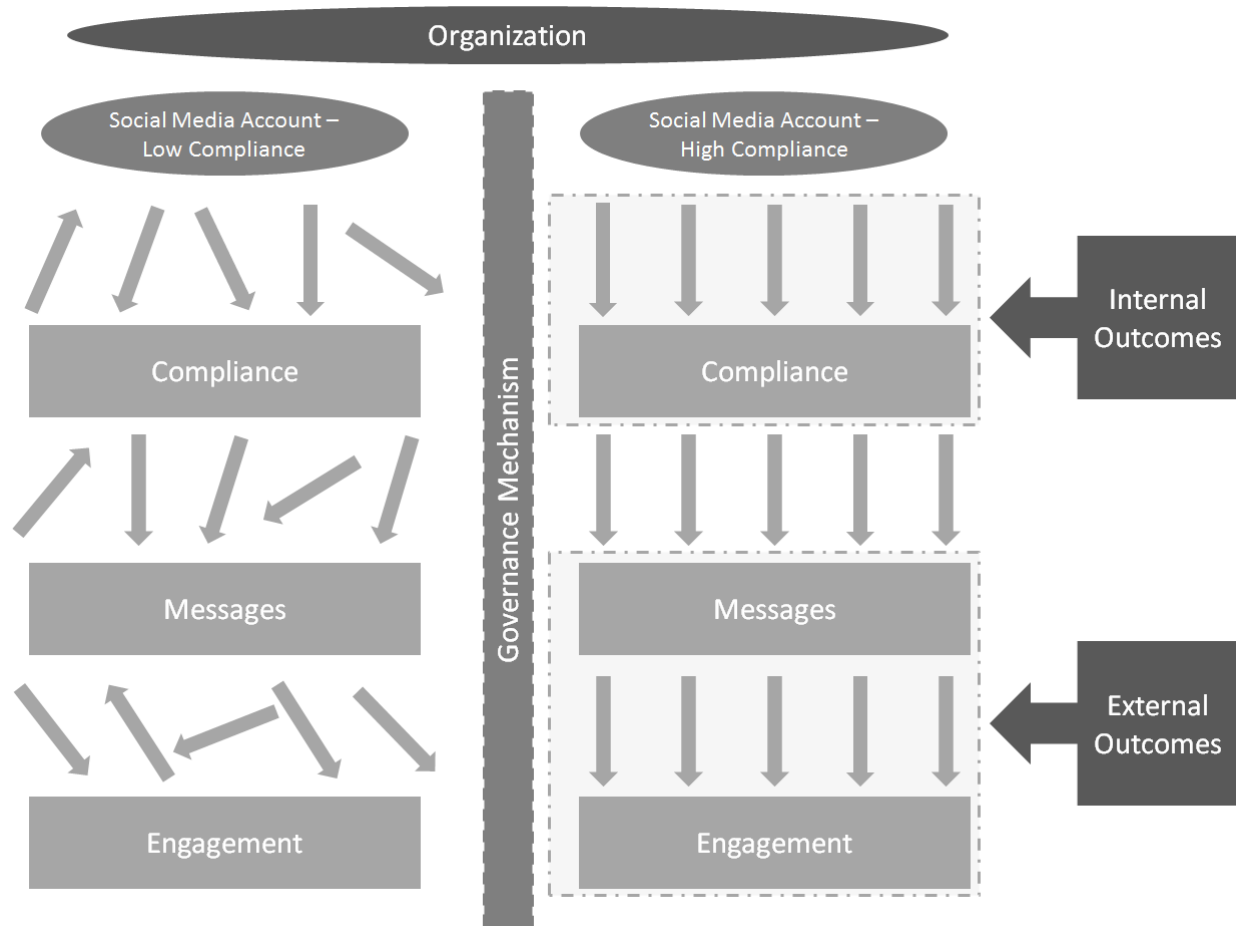


Figure 4 Organizational Social Media Governance Framework

The conceptual framework is meant to highlight where and how organizational social media governance fits into the high-level framework in Figure 2. In Figure 4, the organization has a set of social media presences that operate under a current set of governance mechanisms. The left side of Figure 4 is before the SMP and ISMSR are put into place, while the right side is after those formal rules are adopted. Each of the social media presences has an individual

strategy, but also follows a higher level organizational strategy guiding the individual units. The strategy of the county and the individual units do not have to be formalized. Prior to the implementation of the SMP and ISMSR there was no officially adopted set of formalized rules, but some other non-formal type of governance shaped the county's social media use.

On social media, each of the social media presences has a fictional arrow representing its compliance with current county policy. The more compliant that individual unit is the arrow will be pointing directly at the bottom of the page. Arrows that are shifted to the right, left, or the top of the page are considered to be less aligned with current compliancy standards. The initiation of the SMP and ISMSR represents the addition of new formal rules as the mechanism to coordinate county social media presences. Governance theory assumes that the implementation of these formal rules will lead to some change within the social media presences. The change represented in Figure 4 is a collective shift of the arrows towards the bottom of the page and alignment with the overarching goals. The coordination of those social media presences is represented by the compliance of each individual unit. The county expects that the SMP and ISMSR lead to coordination and engagement with the public. This dissertation is positioned within the governance theory framework, which helps in understanding the effectiveness of those mechanisms, which is discussed in Chapters 1 and 2.

Connecting Compliant Accounts to Engagement

The goal of the SMP and ISMSR was to create a consistent and credible set of social media accounts that led to engagement with the public. The measures of civic engagement used in my study are the likes, comments, and shares on content posted by county Facebook pages by individuals from the public or organization. The SMP turned cues (Walther & Parks, 2002) that

were inconsistent and not credible into more consistent and more credible indicators of the county's trustworthiness. This trust through the cues then leads to higher levels of engagement with the public.

Message or Post Content Factors in Engagement

There is abundant research on the type of content and how it creates more or less engagement. For example, media richness (Sabate, Berbegal-Mirabent, Cañabate, & Lebherz, 2014) directly affects the rate of engagement within Facebook pages. There is strong support for how engagement occurs in social media spaces for organizations and the level of engagement that is created in response (Coursaris, van Osch, & Balogh, 2013). The richer the message, in this case Facebook post, the higher likelihood a message will receive engagement in the form of a comment, like or share (Coursaris, van Osch, & Brooks, 2014). There are also differences between the likes, comments and shares in the types of content that is engaged with.

Other researchers look at how non-profits tailor messages on social media to achieve certain outcomes. Lovejoy and Saxton (2012) look at information, promotional and sale, and community dialogue as three different factors in impacting social media engagement among non-profits. In work that expanded on those three criteria, promotional and sales were broken into three different messages. Saxton and Waters (2014) found that promotional or event messages experienced fewer shares than informational messages. The primary finding from Saxton and Waters (2014) is that the “public prefers dialogue over information” (p. 294).

The branding literature operationalizes online engagement as clicking on links, page views, and other digital behaviors (Lehmann, Lalmas, Yom-Tov, & Dupret, 2012). Cvijikj and Michahelles (2013) review literature on online engagement with organizations finding that

understanding online engagement with organizations could be profitable and lead to more word-of-mouth advertising (brand advocacy). Thus, it is in the interest of Oakland County as an organization to implement policies that recommend increasing certain types of content. However, some research has suggested that brand related information does not result in increasing shares on Facebook, but increases in the likes and comments a Facebook post receives (Cvijikj & Michahelles, 2013). Thus, it may be more advantageous to post entertaining content (Cvijikj & Michahelles, 2013) for engagement, but it may not lead to better awareness or understanding by the public. The total amount of engagement for content will increase when the content is easy to consume, but the more interactive content will have a greater reach through shares (Cvijikj & Michahelles, 2013).

Facebook pages are generally less coherent than websites in the organizational messages presented (Peruta, Ryan, & Acquavella, 2012). Positive experiences related to brand Facebook pages indicate greater likelihood of performing social media type behaviors, such as liking, commenting or sharing (Smith, 2013). Therefore, it's important for the county to create positive experiences for the public in these online spaces.

Warranting Theory

One important aspect of social media use by organizations is the development of relationships between the organization and the public it serves. One way of framing these relationships is through an interpersonal lens whereby organizational accounts are treated as personal spaces where employees of the organization interact with the public and other organizations. I argue below that the interpersonal cues interpreted by warranting theory can be used to interpret why organizational social media use works in a similar fashion. I explain why Oakland County, as an organization, sends cues out in similar ways to the public, as an

individual would in an interpersonal relationship. Those cues from the county affect the credibility and consistency of how the public views those accounts and the engagement that occurs as a result.

The theory developed out of Goffman's (1959) presentation of self. Goffman argued that individuals present the self through verbal and nonverbal cues. Similarly, individuals and organizations send verbal and nonverbal cues through profiles and pages in the form of text, image, video and networks. The situation of Oakland County is very similar. Oakland County, through Facebook pages, maintains a set of selves presented through individual pages. The public then assesses those cues from each page to determine their credibility and consistency, which affects their decision to engage with the county or not.

The initial premise of warranting theory was based on the idea that individuals meeting in person would perceive someone as deceptive if that person did not match their online profile in some way (Walther & Parks, 2002). People would be perceived as more credible and reliable if others provided or confirmed a profile detail. For organizations, the cues they provide through profiles, names, etc. versus those cues others provide through page likes or sharing content can have a similar affect in influencing outcomes. The county, as a government organization, may have much more difficulty in using self-provided cues trusted by the public, and may see more benefit by other-generated cues (Walther, Heide, Hamel, & Shulman, 2009). Like individuals, organizations will likely perform, potentially to a greater degree, selective presentation of the organization, but may not even be aware of the degree to which it is being done (Walther, 2007). Thus, different forms of information and have different values according to where the cue originated (Walther et al., 2009).

There are several different forms of cues that have inherent values to others (Walther & Parks, 2002). First and foremost is the cue generated by the self or organization, which is a self-provided piece of information that cannot be verified other than through an in person meeting. Thus, the information is trusted less than a piece of information that can be verified by another source, as Walther and Parks (2002) state, “derived from the receiver’s perception about the extent to which the content of that information is immune to manipulation by the person to whom it refers” (p. 522). Walther et al. (2009) found support for the effect of other supported cues. In Oakland County’s case, an “other” provided cue could be in the form of a URL to a website, having content shared by another county organization, or having someone post that lists their employment with the county. Alternatively a self-generated cue is described on the account by the account owner. If the account owner decides to include the department, agency, or unit name then a self-generated cue is present. If the name of the department also includes the county affiliation then the combined effect of those texts creates a potentially stronger cue.

A third type of cue is the system-generated cue (Antheunis & Schouten, 2011), which is a cue beyond the control of profile or page owner. In Oakland County’s case the cue would be the number of ‘likes’ the organizational Facebook page has received. Those likes send a signal to individual users that the Facebook page being viewed is perceived as reliable by others, but the system is showing that tabulation, which is not easily tampered with.

Warranting theory has also been used in organizational research related to blogging by corporations (Hayes & Carr, 2015). Although not found to be significant in blogs, the idea proposed by Hayes and Carr (2015) was that blogs with affordances of social interaction between bloggers and readers should create opportunities for warranting that lead to source credibility and perceived expertise for the blogger. In a similar way, Facebook pages that have higher levels of

warranting occurring may be considered more credible and trustworthy. Hayes and Carr still argue that the social affordances of websites create the opportunity for credibility and expertise to be seen in the account owner, even though their hypotheses were not fully supported.

There are two aspects of source credibility that are important for determining the effect of credibility on engagement. Expertise is “the extent to which a speaker is perceived to be capable of making correct assertions,” and trustworthiness is “the degree to which an audience perceives the assertions made by a communicator to be ones the communicator considers valid” (see Hovland, Janis, & Kelley (1953), as cited in, Pornpitakpan (2004, p. 244)). Evidence suggests that the more credible a source is the more attractive it appears to consumers. In this case, the county is the source attempting to appear credible where it can attract the attention of consumers or citizens. The more credible all the social media accounts appear to be, the more likely they will attract public attention and potential engagement. By associating social media system-cues with credibility (Edwards, Spence, Gentile, Edwards, & Edwards, 2013), researchers have found links between Klout scores and credibility. The same could hold true for Facebook organizational credibility and those cues. The more cues and consistent those cues are across various organizational accounts the more likely those accounts will attract users and generate engagement.

Using the framework of warranting theory, I argue that more compliant county Facebook accounts will receive more engagement from the public than non-compliant accounts. The increase in compliance, when interpreted as an increase in warranting value, demonstrates an increased likelihood of reliable and credible information. If source credibility is important for engagement, then the hypothesis is correct. However, it is also possible that less credible or provocative information will generate more response. In that case, the hypothesis will not hold.

Thus, social media governance, by generating higher warranting value with compliant accounts, will lead to greater engagement on Facebook for accounts following the SMP and ISMSR.

Hypotheses

I interpret compliance as a collection of indicators that point to the credibility of the account as an official representation of the county. The compliance indicators are based directly on the SMP and ISMSR. For example, an indicator of compliance would be the official county name being used as the Facebook page name. That official name, checked against the county website, gives an indication of credibility that the Facebook page is indeed representing the county as a credible and consistent place for information. The indicators may be self-generated by the organization (Facebook page name), other-generated by other organizational accounts (other county Facebook page shares another page's post), or by the public (Public gives a positive review of the account in question). To attempt to capture the account compliance, several different measures will be used based on whether or not they are visible to the public and whether they are internal or externally based compliance aspects.

In the case study, I documented the internal changes and how those changes have led to the removal of certain social media presences, but also changes in behavior by county units. Specifically, interviews indicated that multiple accounts had been removed in response to the SMP. Account information was also shared with the I.T. department in response to the policy. What the county does not explain or have a reason for is why those organizational changes from governance would lead to the expected external changes. If higher compliance increases engagement, the following hypotheses should hold:

H1: Compliant accounts will have more engagement with the public than non-compliant accounts.

H2: Compliant accounts will have more engagement with the public even when controlling for message characteristics known to increase engagement.

Within the aforementioned hypotheses, there are two basic premises: First, that Oakland County social media accounts vary in their implementation of the social media governance provisions established by the SMP and ISMSR. Second, that this organizational governance would create greater rates of government and citizen engagement producing more brand advocates and network reach.

In hypothesis one, I propose that county social media accounts that are more compliant will experience more engagement due to the consistent and credible indicators on the account. Indicators represent verbal and nonverbal cues, which can be expressed through warranting theory (Walther & Parks, 2002) as a way to explain why the credibility and consistency are shaped by that compliance. In hypothesis two, I am proposing that the governance of the SMP and ISMSR will still have a significant effect on engagement even when controlling for known social media engagement factors. By controlling for known characteristics, I eliminate some of the unknown factors likely affecting engagement other than the county's social media governance.

Chapter 5: Quantitative Research Design

The quantitative approaches I use here are the dominant methods in my dissertation and were also being constructed during the qualitative phase. In this chapter, I document the data collection process for the quantitative phase, accounts that were sampled from the sampling timeframe, the content coding process, and the measures used in operationalizing my hypotheses.

Data Collection

I use Facebook as the STS of choice due to the high rate of adoption in the United States and prevalence of use by the local county government. Facebook represents a popular and highly used social media website that is common among U.S. Citizens (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015) and also has the widest use among county departments and agencies. All page data on Facebook is available publicly meaning that a public page can be viewed by any person with a Facebook account. The Facebook page data was collected through a partnership with Oakland County.

Account Sampling

The county was provided with a list of Facebook accounts for analysis that varied by compliance level. A list of the county Facebook accounts was created, which broke the accounts into three broad categories of non-compliant, somewhat compliant, and fully compliant according to the SMP and ISMSR. A county employee provided the original list with their interpretations of compliance with the SMP and ISMSR. In addition to the original list, the

county's social website⁸ linked to seventeen separate Facebook pages alongside a variety of other social media pages from Twitter, LinkedIn, YouTube, Flickr, Instagram and Pinterest.

I cross-referenced the county's social website against the provided data, but also checked those two lists against department and agency potential accounts on Facebook. I did this using Facebook graph search with the phrase, "The county X" or "The county mi X", where "X" is the name of the department or variation of the name I searched.⁹ For some departments and agencies, I found an "unofficial page", which was a place individual Facebook users were posting about or visiting. These pages were classified differently by Facebook meaning they could be government organizations or businesses, but they do not indicate that the public could communicate with them. These pages are similar to Yelp review pages. For example, the Oakland County Airports¹⁰ and Oakland County Community Corrections¹¹ both had unofficial Facebook pages, which were linked to data from Bing through Facebook. I do not include these pages as potential Oakland County Facebook accounts to choose from because there are no county employees behind them or any individual for that matter.

I found other differences between the numbers of accounts I located on Facebook versus the accounts linked to on the county website or provided by the county. For example, one department was listed by the county as having a Facebook account, but no Facebook page was documented on the county's social website. The difference may be due to the compliance of that account or other factors. Other pages were found that appeared to belong to the county, but these

⁸ For a current list of all county social media web presences, go to: <https://www.oakgov.com/social>

⁹ I used the names listed on the Oakland County Department directory webpage as the necessary search terms: <https://www.oakgov.com/directory>

¹⁰ The Oakland County Airports had multiple Facebook unofficial pages, one at: <https://www.facebook.com/pages/PontiacOakland-County-International-Airport-KPTK/120445051356171?fref=ts> and the other at: <https://www.facebook.com/pages/Oakland-County-International-Airport/120083908038235?fref=ts>

¹¹ See this page for Oakland County Community Corrections: <https://www.facebook.com/pages/Oakland-County-Community-Corrections/168476146499108>

accounts were listed under “non-county government organizations, agencies, and services” on the directory page, which are excluded. However, the county did list one account as being under their purview, but this account is also listed under the non-county government heading in the directory. In selecting the accounts for sampling, I decided on what accounts to include by taking the original county provided list and making the best match with the social page and directory page. From this match, there were a potential of eighteen Facebook accounts to sample.

The account selection process is important to understand for interpreting how governance leads to changes in engagement with the public. All of the accounts are potential candidates for study, however, if accounts are considered by the county to be outside of the purview of those governance mechanisms then this study does not necessarily need to include those accounts. I think it is preferable to include only accounts that are deemed to be adhering or not to the county policies by those who monitor that compliance the closest, thus, I limit the sample of accounts to those agreed to with the county. I describe these accounts in Chapter 5. I was unable to independently certify their compliance because I do not have access to the internal agreements. I established a set of coding instructions and my contact within the county indicated whether or not the individual accounts fit certain criteria. The county suggested that it did not make sense to include some Facebook accounts because they were beyond the control of the county and thus were not included in this research.

Sampling Timeframe

The sampling timeframe included all Facebook page data from March 17, 2015 through April 15, 2015. This timeframe was used because it falls inside the page export time range of the

past 180 days¹², but was also prior to the participant interviews. This allowed avoiding potential problems as the interviews could have altered Facebook posting behavior.

Account Recruitment

The county sent the initial recruitment email to the eighteen departments being sampled. The accounts were sampled for the Facebook page and post data exports from Facebook Page Insights. I only provided the instructions for downloading the data, which was then emailed to the accounts. The instructions I wrote included the following steps:

1. From the Facebook Page - click on the Insights tab. (Other instructions can be found here: <https://www.facebook.com/help/383440231709427/>)
2. Under Insights click on the export button.
3. Several options will appear when you click export. Please select the following:
 - a. Date range March 17, 2015 thru April 15, 2015
 - b. Format in '.csv'
 - c. Data type posts
4. Click download and the file should prepare itself.
5. Repeat steps 3 through 4, but this time "page (may be labeled as, likes, reach & engagement" data type should be selected.

The account recruitment email resulted in seventeen accounts providing page data and post data. Two of the accounts did not have any posts during the time period and were removed from analysis. The Facebook page data delivered by the county were unaltered.

¹² Facebook changes the access periods Pages are able to access for this dump. At the time of this data collection, the limit was 180 days. See Facebook Page Insights for more details: <https://www.facebook.com/help/336893449723054/>

Coding the Data

Two coding processes were performed on the data. I first explain the account level coding process followed by the account post coding. The codes used for both the account and post level codes are documented in the next section of Chapter 5. All seventeen accounts were initially coded, but only fifteen are used in the analysis. The account level variables were coded by a county employee given instructions based on the initial compliance factors they defined, but also altered based on the SMP and ISMSR. The full description of the coding instructions can be read in Appendix 4. The account level variables are operationalized in the next section and described in Chapter 6.

The account level data was coded by the Oakland County employee six months after the post level data. The account level data was matched against the original compliance data collected during the dissertation proposal which occurred one month after the Facebook post sampling timeframe. This data could not be included in the dissertation due to confidentiality agreements. See Table 1 for a full timeline of methods.

Table 1 Timeline of data collection

Event	Date (s)
Account level data timeframe	March 17, 2015 – April 15, 2015
Interviews	Late April – Early May
Requested account level data	August 28, 2015
Received account level data	September 11, 2015

The codes used in the two different account coding processes were not identical, but similar in enough ways that a comparison could be made. The results of that comparison suggest that only two accounts had changes in two different account level codes. One account had previously

provided account credentials, but in the new coding this was not the case. The second account was not included in the final cut of eighteen because no post level data were available. However, it is unlikely that accounts noncompliant six months later would be compliant before. Thus, I am fairly confident in the limited changes in compliance and that the account level variables are valid and reliable.

The post level data was coded by the researcher and an assistant. The total number of posts that had to be coded was 770 as five were removed due to corrupted URLs. The descriptives for these variables are described in Chapter 6. An iterative coding process was used for the message characteristics related to content. The consensus estimate (Stemler, 2004) was used to test the agreement between the two coders to check for interrater reliability. Four attempts were necessary to achieve acceptable interrater reliability using 20% of the sample. During the first three attempts, I achieved a range of Cohen's Kappa statistic (Cohen, 1960; Cohen, 1968) ranging from low .4 to high .5. These ranges were unacceptable, thus I employed a primary and secondary coding schema whereby the individual coder would decide if a Facebook post necessitated two different codes. A Cohen's Kappa statistic above a .60 (Landis & Koch, 1977) was necessary to move forward and achieved through the primary and secondary coding schema.

For the fourth iteration of coding, I had a Cohen's Kappa of .429 after using only the primary codes. Codes pertaining to call-to-action and dialogue and community building were common in messages promoting certain messages and were coded differently by the coders. In order to manage the first round of differences, I took the secondary codes that I applied and matched those to the other coder's primary codes. If those codes matched, then I changed my primary code to theirs. After performing this procedure, I achieved a Kappa of .791, which is

satisfactory for my purposes. I suspect that establishing across department codes is not a sufficient means of developing coding schemes for content or original codes need to be developed. The remaining differences between coders were discussed and adjusted accordingly.

Measures

The primary unit of analysis employed in the statistical analyses is the Facebook post. There are two levels of measures within the data. There are account level measures and post or message level measures. The Facebook post will be the unit of analysis, but will also have the various account metrics attached.

Account Level Variables

Account level variables center around the compliance of that county unit and associated set of metrics developed from the SMP and ISMSR. On Facebook, account compliance is operationalized from the following index of variables that can be tested both individually and as a scale or county. The account compliance is broken down into two categories. The first is compliance that is visible to the public. The second set of account compliance issues are non-visible metrics that were coded and provided by the county.

Visible Account Compliance Measures

Page identification and contact information – The account needs to contain contact information that is correct and consistent with the county. There are several different ways to do this, but a composite of the score and individual items is used for analyses. According to the

SMP, “all County-sponsored social media sites must clearly identify that they are maintained by Oakland County and prominently display County contact information” (p. 1).

- *Profile photo* – Coded as 0 or 1. If the account has an official county profile photo based on the county servicemarks it is considered compliant (Code 1). According to the SMP, “you must use a County-owned servicemark exactly as it appears in the County’s Media Management System” (p. 3).
- *Identify county* – Coded as 0 or 1. Accounts that contain the name of the county are considered compliant (code 1).
- *Official name* – Coded as 0 or 1. To be considered compliant (code 1) the account must use the same name as it appears on the county website.
- *Phone* – Coded as 0 or 1. 1 = the official phone number as listed on the county website. Compliant is coded as 1.
- *Address* – Coded as 0 or 1. The same address as listed on the county website. Compliant is coded as 1.
- *Email* – Coded as 0 or 1. The same email address as listed on the county website. Compliant is coded as 1.
- *Website* – Coded as 0 or 1. The URL listed must link to the official county website for that particular Facebook account. Compliant is coded as 1.

Social media use guidelines – the account must list the appropriate use of social media for citizens. According to the SMP, county Facebook accounts must, “prominently display the following statement on all sites that accept comments from the public” (p. 3), which is:

“The County reserves the right to remove inappropriate comments including those that are discriminatory, obscene or sexual in nature, threaten or defame an individual or entity, support or oppose political candidates or proposals, violate the intellectual property rights of another party, promote illegal activity or commercial products or

services or are not related to the topic in the original posting. Keep in mind that all of your posted comments are public records and subject to disclosure. Requests for public records may be submitted to corpcounsel@oakgov.com” (p. 3).

This statement, and variations of it, appears in different places on the various Facebook accounts and thus has different visibility. A set of variables are coded for how “prominently displayed” (SMP, p. 3) and accurate the guidelines are.

- *Some text* – coded as 0 or 1. If any text guidelines are posted a 1 is coded for compliant. This includes outdated policy language or unofficial language.
- *Official language* – coded as 0 or 1. If the exact official language is used from page 3 of the SMP an account is considered compliant and coded as 1.
- *Visibility* – coded as 0 or 1. If the language is posted in the About section of a Facebook page it is considered compliant, coded as a 1. Posted as a Note is considered non-compliant and a 0 because Notes can be very difficult to find and also disappear from visibility as more notes are posted.

Non-visible Account Compliance Measures

Facebook account credentials – The SMP mandates that social media accounts must be approved through I.T. and login credentials stored with the department. Compliance is coded as a 0 or 1 for Facebook accounts. The SMP states, “The I.T. Department will retain password and log-in information for all County-sponsored social media” (p. 1).

Other account credentials – In addition to Facebook, some other county departments and agencies have multiple social media accounts. I.T. has login credentials for some of these, but not all. This measure is used as a proxy for general social media governance compliance. For each social media account that I.T. has credentials for, the associated Facebook account is scored

as a 0 for no account credentials across all non-Facebook sites and a 1 for compliance with all other non-Facebook accounts. Facebook is treated as a separate compliance measure in *Facebook account credentials*.

ISMSR compliance – The strategy is a bit more difficult to code. This is not due to interpretation, but because the guidelines in the ISMSR are not explicitly laid out as clear mandates versus recommendations. The county provided a list of social media accounts that have been instructed or are aware of the official strategy of the county. The ISMSR is part of the mandate in the SMP, which states that,

“You must follow the I.T. standards for managing County-sponsored social media sites. To ensure the County has a consistent image on its social media sites, refer to I.T. standards for the look and feel of County-sponsored social media sites” (p. 1)

ISMSR compliance is coded as the sum of three nominal dummy variables.

- *ISMSR aware* – nominal variable that is based on the accounts awareness of the ISMSR and if they are not aware at all coded as 0 versus are aware by participating in some compliance measure coded as 1.
- *ISMSR educated* – nominal variable that is based on accounts that have an outdated strategy or been educated about the strategy through proxy. Those accounts that have never participated in informal or formal learning of the strategy are coded as 0, whereas those who have learned of the strategy through any means or have evidence of that strategy are coded as 1.
- *ISMSR up-to-date* – nominal variable that measures the accounts’ current compliance. An account that has an outdated or no strategy is coded as 0, but an account that has an updated current strategy it is coded as 1.

Post Level Variables

Message or account posts are the primary unit of analysis. The variables associated with those messages are broken down into message compliance and content characteristics. Message compliance has only visible characteristics, unlike account compliance. The content characteristics are social media metrics that correlate to likes, comments, and shares on Facebook. I first discuss message compliance followed by content characteristics.

Organization engagement is coded as a continuous independent variable. This variable is coded exactly the same as the civic engagement dependent variable. However, only the official county accounts are treated as the engagement for the county organization. Thus, for each message any likes, comments (or replies to a comment), or shares on that post by one of the eighteen analyzed county accounts identified as having access to those Facebook accounts are summed. A total *organization engagement* metric is the sum of all three, but three additional variables were created based on the sum of likes, comments and shares individually. Those variables are *organization likes*, *organization comments*, and *organization shares*.

Message Compliance

Identifiable person posting – the first measure of message compliance is whether or not the Facebook post identifies the employee who is posting on the county’s behalf.. According to the SMP, “anonymous postings by County commentators are not allowed” (p. 1). Compliance with this is coded as 1 for compliant and 0 for non-compliant.

Person posting position – The second measure of message compliance is whether the individual posting on behalf of the county lists their position within the county. The SMP states that, “when you post on behalf of the County you must identify your position with the County”

(p. 1). Putting a cursor over an individual Facebook user's name reveals the employment of an individual. However, if the individual hides that information, due to privacy settings of the individual's account, then the position is not visible. The individual may also not list their employment in their account. Thus, if the individual posting on behalf of the county does not list or allow their employment to be visible then the message is considered non-compliant with a code of 0, but a code of 1 is scored for compliant accounts with visible employment position information.

Content Characteristics

Media richness – is coded on four different nominal levels. Messages are coded based on whether or not they contain text, image, URL, or video. *Text* – is dummy coded as a 0 = No or a 1=Yes. *Image* – is dummy coded as a 0=No or a 1=Yes. *URL* – is dummy coded as a 0=No or a 1=Yes. *Video* – is dummy coded as a 0=No or a 1=Yes. An interval variable that is the sum of those four metrics will be treated as *media richness*.

Message type - three different types of codes are applied to the messages based on other organizational literature around non-profit use of Facebook and Twitter (Lovejoy & Saxton, 2012; Saxton, Guo, Chiu, & Feng, 2012; Saxton & Waters, 2014). The codes have been adapted to this research. The five codes, which include subcategories, are based on the focus of the organization's message, which include information-sharing, fundraising and sales, events and promotion, call to action, and dialogue and community building (Saxton & Waters, 2014). Each measure is dummy coded where 0=No and 1=Yes indicating that the message in question is that type. The codes are meant to be mutually exclusive, but as indicated in the coding process a primary and secondary code system was needed.

Information-sharing – a message is considered information-sharing if it is “focused on the organization in question, its mission, and its programs and services, or other relevant information the organization believes is of interest to its fans” (Saxton & Waters, 2014, p. 286).

Promotion and mobilization - three types of messages fit under this category. Each of these message types are still considered one-way communication, but hoping to “encourage and empower those who see the message to do something for or on behalf of the organization” (Saxton & Waters, 2014, p. 287).

- *Fundraising and sales* – this is a message that requests or acknowledges public assistance to the organization through donations, selling products or services for the organization or on behalf of the organization. This includes any information regarding donations that have been received or are being asked for as well as promotional sales that benefit the organization or other organizations.
- *Events and promotion* – messages that highlight “opportunities for stakeholders to become engaged with the organization by participating in an online or offline activity hosted by the organization” (Saxton & Waters, 2014, p. 287). Any online or offline event that has happened or will happen will be included in this category including events that do not appear to be related to the organization.
- *Call to action* – these messages “empowered stakeholders to become involved with the organization through methods that were not contributing financially to the organization or attending events; these updates ranged from urging stakeholders to sign petitions and contact legislators to encouraging volunteering and advocacy for the organization with family and friends” (Saxton & Waters, 2014, p. 287). This will also include specific language requesting folks to share information or raise awareness about a topic.

Dialogue and community building – this message code focuses on posts that attempt to engage directly with users or other social media accounts that may be alternate organizations. The message “shows that the organization is attempting to reach out to others in a genuine manner to create an online community of supporters” (Saxton & Waters, 2014, p. 287). This includes posts that ask opinions of other users, ask for details about something, or pose questions to their page.

Control Variables

Control variables at the account level include the total number of page likes, age of the account, and average number of posts per day during the sampling period. The more page likes a page have the more engagement is likely to occur because of the larger potential audience. The age of an account is likely to determine in some ways, how proficient the account is at using Facebook. The more proficient an account is the more engagement it may generate. The more posts per day by an account will also have an effect on engagement because the frequency helps to establish a continuous relationship with the public. Message level variables could include the post day of the week and time, which are recorded from the original Facebook post.

Dependent Variables

Engagement is the primary dependent variable, but broken down into several different variables. Engagement is measured by the sum of likes, comments and shares for each individual Facebook post or the individual sum of those separate pieces. My data include all posts that appear on given days, but the engagement that occurs with those posts could have occurred occur at any point in time since the original post. It is unlikely that a Facebook post

would continue to receive likes, comments or shares a month or two after the initial post, but it is possible. Thus, the total engagement and individual likes, comments, and shares that occur with a post are recorded.

Civic engagement is coded as a continuous variable. Throughout the dissertation I refer to civic engagement as public engagement, civic engagement, and engagement from the public. All three expressions are used synonymously. The sum of likes, comments and shares by all non-county official accounts and non-county organizational accounts are treated as the engagement by the public. Three additional dependent variables, known as *civic likes*, *civic comments*, and *civic shares* are used. Official county accounts were based on the initial account sampling process. *Civic comments* are coded somewhat differently whereby any comment that occurred on a post, or reply to a comment, was coded as a comment. Likes and shares received by a comment are not coded in the engagement variables. Civic comments are coded in this way for two reasons. First, comments are visible to Facebook users whereas the likes and shares on comments are hidden unless highlighted. This matters for sending cues as signals as something that is not visible is unlikely to send a cue. Second, for likes and shares attached to the original Facebook post, I care more about the engagement with the original post because it comes from the county account. Comments and replies-to comments are added together because comments are almost like the strength of engagement of a message, as an original Facebook post receives more comments and replies the stronger the dialogue on that message appears. Thus, the more comments the more engaging that message was where people cared enough to interact with it.

Describing the Variables

The account level metrics are treated two ways, as a sum of the visible and nonvisible compliance variables, and as individual nominal variables. The account level control variables are page likes, account age, and number of posts. Table 2 below outlines all the different variables that are used in analyses and how they are combined. Account compliance is the sum of all visible and non-visible account compliance variables. Visible compliance is the sum of all nominal variables under it and the same process for non-visible account compliance. The number of accounts that were coded in a specific category is shown as a count and percent. The interval level variables include mean, median and standard deviation.

Table 2 Account level independent variables

Variable	Type	Labels	Levels	Count~		Mean	Median	sd	Max	Min
Account Compliance***				No (%)	Yes (%)					
Visible account compliance	Interval	NA	Sum	NA	NA	6.2	7	1.86	9	3
Page / contact information										
Profile photo	Nominal	No/Yes	0/1	2 (13)	13 (87)					
Identify county	Nominal	No/Yes	0/1	4 (27)	11 (73)					
Official name	Nominal	No/Yes	0/1	4 (27)	11 (73)					
Phone	Nominal	No/Yes	0/1	4 (27)	11 (73)					
Address	Nominal	No/Yes	0/1	2 (13)	13 (87)					
Email	Nominal	No/Yes	0/1	11 (73)	4 (27)					
Website	Nominal	No/Yes	0/1	0	15 (100)					
Social media use guidelines										
Some text	Nominal	No/Yes	0/1	8 (53)	7 (47)					
Official lang.	Nominal	No/Yes	0/1	13 (87)	2 (13)					
Visibility	Nominal	No/Yes	0/1	9 (60)	6 (40)					
Non-visible account compliance	Interval	NA	Sum	NA	NA	2.6	3	1.06	4	0
Credentials										
Facebook	Nominal	No/Yes	0/1	1 (7)	14 (93)					
Other*	Nominal	No/Yes	0/1	3 (37)	5 (63)					
ISMSR compliant										
Aware	Nominal	No/Yes	0/1	2 (13)	13 (87)					
Educated	Nominal	No/Yes	0/1	5 (33)	10 (67)					
Up-to-date	Nominal	No/Yes	0/1	13 (87)	2 (13)					
Page likes**	Interval	NA	Avg.	NA	NA	2423	1068	3759	12080	227
Account age**	Interval	NA	Sum	NA	NA	1210	958	653	2227	366
Number of posts**	Interval	NA	Avg.	NA	NA	1.72	0.77	2.33	9.1	0.1

*Seven of the accounts had no alternate social media accounts according to the county. The "Other" account credential variable is not included in the non-visible account compliance composite measure.

**Calculated on the 30 day average during the data collection period.

***Calculated on the 15 accounts' message and account data available.

~775 messages used for calculating Account level stats when possible, otherwise 5 messages removed due to corrupt URLs.

Visible account compliance has a potential range of 0 to 10 with a mean of 6.2, median of 7, and standard deviation of 1.86. The Other variable under Credentials is not included in the non-visible account compliance variable due to seven of the original accounts not having any other social media accounts. Non-visible account compliance can range from 0 to 4 with a mean of 2.6, median of 3, and standard deviation of 1.06. Message level variables are treated in the same fashion as account level variables. The account level control ranges are excluded to provide some level of anonymity.

The unit of analysis is the Facebook post or message. Table 3 below shows the breakdown. Message compliance is not present in the data with a zero messages containing either an identifiable person posting or that individual's position within the county. Every message had some form of text present and thus has 100% frequency. Organization engagement is the sum of likes, comments and shares from the originally proposed eighteen Facebook accounts being operated by the county. A separate measure for organization likes, organization comments, and organization shares is also used. Dependent variables including civic engagement, likes, comments and shares are also included in the table.

Table 3 Message level variables*

Independent variables	Type	Labels	Levels	Count		Mean	Median	sd	Max	Min
				No (%)	Yes (%)					
Organization engagement	Interval	NA	sum	NA	NA	0.49	0	0.78	6	0
Likes	Interval	NA	count	NA	NA	0.36	0	0.59	3	0
Comments	Interval	NA	count	NA	NA	0.11	0	0.48	6	0
Shares	Interval	NA	count	NA	NA	0.02	0	0.16	3	0
Media richness	Interval	NA	Sum	NA	NA	2.56	3	0.54	4	1
Text	Nominal	No/Yes	0/1	0	770					
URL	Nominal	No/Yes	0/1	254 (33)	516 (67)					
Image	Nominal	No/Yes	0/1	134 (17)	636 (83)					
Video	Nominal	No/Yes	0/1	720 (94)	50 (6)					
Message type				Percent within Message Type						
Information-sharing	Nominal	No/Yes	0/1	504 (65)	266 (35)					
Fundraising and sales	Nominal	No/Yes	0/1	739 (96)	31 (4)					
Events and promotion	Nominal	No/Yes	0/1	640 (83)	130 (17)					
Call to action	Nominal	No/Yes	0/1	553 (72)	217 (28)					
Dialogue and community building	Nominal	No/Yes	0/1	644 (84)	126 (16)					
Dependent variables										
Civic engagement	Interval	NA	sum			38.27	6	74.25	660	0
Civic likes	Interval	NA	count			23.14	6	47.47	639	0
Civic comments	Interval	NA	count			1.67	0	3.91	39	0
Civic shares	Interval	NA	count			13.46	0	49.43	578	0

*5 cases are not included due to corrupted URLs, bringing the N for the study to 770.

Organization engagement is calculated by adding likes, comments, and shares from the eighteen originally proposed accounts that engaged in these practices on an original post. Comments were counted if they were also replies to another comment within the Facebook post. The assumption is that more visible engagement by the accounts would be seen by the public as a cue that the post is legitimate. The maximum number of organization engagement was six with a modal value of zero. Organization engagement includes accounts performing multiple actions on posts. An account can technically comment multiple times, like, and share a post and this would all be added within organization engagement. Multiple comments are counted by an Oakland County account because civic comments are a measure of intensity of engagement with the Facebook post, which is different than likes or shares. 488 of the 770 posts had no organization engagement.

Media richness is the sum of all four media categories, which include text, URL, image, and video. The scale ranged from 0 to 4. This variable looks at the differences between video, images, and URLs. URLs were present in 67% of the posts, which included both active and inactive hyperlinks. Only videos that had a ‘play’ button arrow were counted as videos.

The message type variables are fairly well distributed. Fundraising and sales had the lowest total, but this category likely does not fit the needs of many of the Facebook accounts included in the analysis.

Lastly, civic engagement is counted using only the individual public accounts that like, comment, or shares the county Facebook post. Civic engagement is highly negatively skewed as is the component parts made up of likes, comments and shares from the public. Much of the engagement with the Facebook posts was driven by one or two county accounts. See Figure 5 below for a histogram of civic engagement.

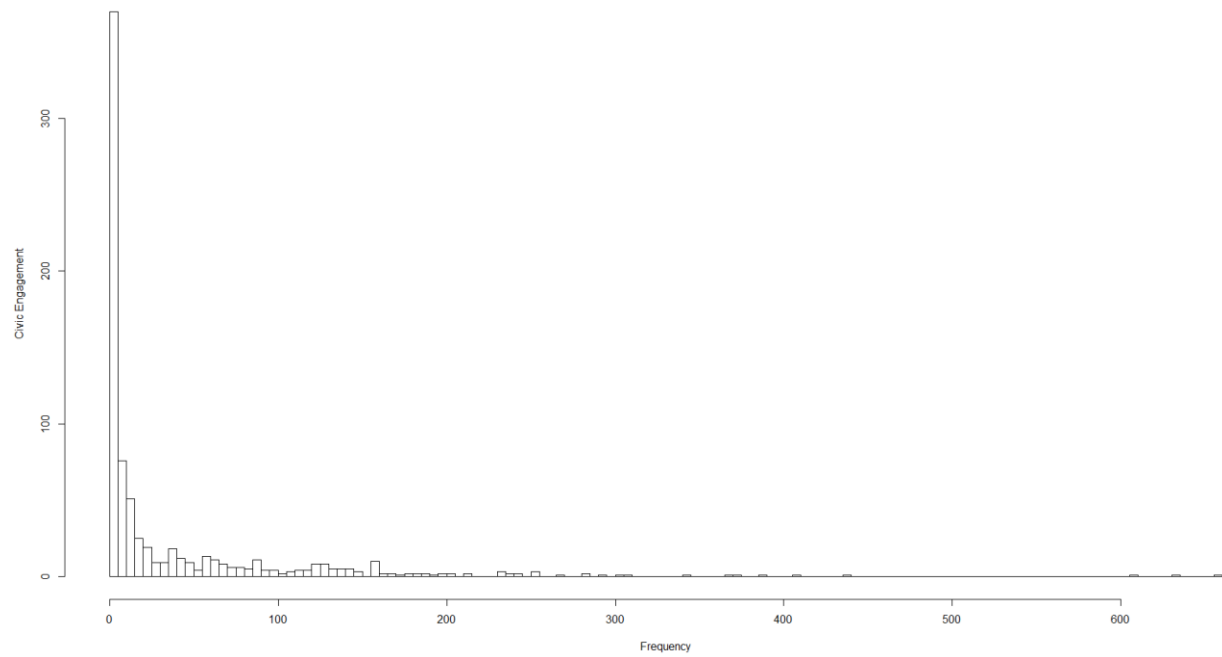


Figure 5 Histogram of Civic Engagement

Chapter 6: Analysis

In this chapter, I describe the data from the quantitative research method, described in Figure 1, and test the hypotheses using multilevel regression models. Because of my interest in the effect of governance, which is mostly operationalized at the account level, a multilevel model allows for “group-level regression coefficients” (Gelman & Hill, 2007, p. 246). Multilevel regressions overcome potential collinearity within the account level grouping variables (Gelman & Hill, 2007). The multilevel model will also allow for account level differences and message level differences within the same model. To begin, I present the basic multilevel regression model I use, followed by a brief recap of what I proposed, and present a series of models discussing my findings as they relate to the hypotheses.

Multilevel Regression Models

There are several advantages and disadvantages to using multilevel models over ordinary linear regressions. While MLM is not much different from single-level regressions, it does allow for random and fixed effects to take place within the same model (Hayes, 2006). This can also be a weakness though, as the researcher must make the determination how to allow the effects to vary. According to Hayes, identifying whether or not to allow for random or fixed effects is one of the most difficult aspects of MLMs. Linear regression can over estimate or underestimate effects because a line is being fitted to the data, whereas MLM can fit the estimate to the grouping level predictor (Gelman, 2006). Another advantage of MLM is the inclusion of model grouping level parameters and grouping level predictors. In addition to these advantages, MLMs

are more accurate and have lower predictive errors than using only fixed or random effects models (Gelman, 2006).

According to Gelman and Hill (2007), there are three different ways to vary multilevel models, which include varying the intercepts, slopes or both. Multilevel modeling is not different from other inferential statistics. The statistics are still just models of data, but more complex to interpret specifically regarding the various errors and estimation criteria. Multilevel modeling adds additional flexibility and the opportunity to use weaker assumptions than linear regressions (Greenland, 2000). I focus on a varying intercept multilevel model because I am particularly interested in the account compliance of the county accounts. Each account, treated as a separate group, has a varying degree of account compliance affecting the intercept. The basic multilevel model I test is:

$$y_i = \alpha_{j[i]} + \beta x_i + \varepsilon_i$$

In this case, j is the specific county Facebook account functioning as the grouping variable with fifteen social media accounts representing the groups. x are the independent variables, which includes the account level metrics and the message level metrics. The account level variables determine the intercept in this model, whereby each account has a regression line compared with the other accounts. The slope will not change among the fifteen different accounts. The slope is statistically significant when the message characteristics effect engagement. Slopes were not allowed to vary because the hypotheses test the effects of account, the intercepts, level compliance on engagement. Message characteristics and the slope were not part of the proposed hypotheses.

In order to test the hypotheses directly, I discuss two specific equations below used in the analyses. Model one excludes all message characteristic variables and account characteristic

variables that do not deal with compliance. This model was meant to examine how account compliance or non-compliance specifically affected engagement:

Civic engagement_i

$$\begin{aligned}
 &= \alpha_{\text{account}[i]} + \beta_{\text{visible account compliance}_i} \\
 &+ \beta_{\text{nonvisible account compliance}_i} + \beta_{\text{organization engagement}_i} \\
 &+ \beta_{\text{message compliance}_i} + \varepsilon_i
 \end{aligned}$$

The second model was meant to test the effect of account compliance while also controlling for message characteristics, which I illustrate below:

Civic engagement_i

$$\begin{aligned}
 &= \alpha_{\text{account}[i]} + \beta_{\text{visible account compliance}_i} \\
 &+ \beta_{\text{nonvisible account compliance}_i} + \beta_{\text{organization engagement}_i} \\
 &+ \beta_{\text{message compliance}_i} + \beta_{\text{media richness}_i} + \beta_{\text{information_sharing}_i} \\
 &+ \beta_{\text{fundraising and sales}_i} + \beta_{\text{events and promotion}_i} + \beta_{\text{call to action}_i} \\
 &+ \beta_{\text{dialogue and community building}_i} + \varepsilon_i
 \end{aligned}$$

Findings from Quantitative Analyses

In order to test hypothesis one, I use a basic multilevel model (Table 4) to examine the simple relationship between visible account compliance, nonvisible account compliance, organization engagement and civic engagement. This model is mostly helpful in illustrating that there is a relationship present in the data between this set of variables. I then test hypothesis two by employing a more complex multilevel model including additional message level and account level variables that control for factors that may be contributing to civic engagement. This model

represents the overall structure of the data and how civic engagement is associated with the other variables. Table 5 shows these results and gives evidence that hypothesis one is not supported. Lastly, I include a linear regression model in Table 6 to demonstrate that there is some relationship between visible account compliance and civic engagement. This model does not allow for variation between accounts and shows that there is at least a basic linear relationship, but further data may be needed. Visible account compliance does not have a stable relationship with the dependent variables changing from a positive to a negative sign. This could be due to the small number of observations for some of the accounts. As shown in Table 6, in the aggregate visible account compliance has a positive and statistically significant effect on civic engagement. However, when examining the data at a more disaggregated level it is revealed that this relationship is not very stable, indicated by the changes in the sign of visible account compliance.

The basic model to test the relationship between visible and nonvisible account compliance and civic engagement was proposed in Figure 4 testing hypothesis one. Table 4 below shows these results.¹³ I found that visible account compliance only has a statistically significant relationship with civic shares so for every increase in visible account compliance there is an average increase of 5.2 Facebook shares by the public. In the opposite direction, nonvisible account compliance has a statistically significant negative association with civic engagement and civic comments. This finding is surprising because the expected relationship is positive. A positive relationship between nonvisible account compliance and civic engagement and comments would indicate that county governance not visible to the public has been effective and corresponded to engagement. However, a one unit increase in non-visible account compliance is associated with -7.39 in civic engagement and -.44 comments.

¹³ For more detailed statistical models, see Appendix 2.

Organization engagement has a statistically significant positive association with each type of civic engagement. Other county Facebook accounts engaging with Facebook posts can potentially lead to a 23.55 civic engagement increase. Treating civic engagement through individual behaviors, civic likes are likely to increase by 9.28 for every one organization engagement. 1.6 comments and 11.53 shares can potentially be expected from the public for every increase in organization engagement.

Table 4 Multilevel regression varying intercept model with coefficients

	Civic engagement	Civic likes	Civic comments	Civic shares
Intercept	-22.84	-10.47	-1.69	-18.58
Account level				
Visible account compliance	6.63	4.57	0.41 .	5.2 *
Non-visible account compliance	-7.39 *	-5.43	-0.44 *	-5.99
Message level ¹⁴				
Organization engagement	23.55 ***	9.28 ***	1.6 ***	11.53 ***
Pseudo R squared	0.4	0.29	0.33	0.15

In Table 4, civic shares shows limited supported for hypothesis one that account compliance would lead to more engagement. The primary take away from this simpler model is that while controlling for account and compliance factors, Facebook posts that receive engagement from other county Facebook accounts generate higher rates of all forms of civic engagement than posts that receive no organization engagement. The likes and comments by organizational accounts may act as cues from others (Antheunis & Schouten, 2011) that tell the public these are credible account posts that can be engaged with. However, it may also be the

¹⁴ Message compliance was planned for this model, but no evidence of the behavior occurred in the data.

case that the same types of posts that attract likes and comments from other organizational accounts are also the types of posts that attract likes and comments from the public. The shares by other organizations generate other cues, but also give the original account post added network reach by making the post visible to more potential viewers. Lastly, increased civic shares are also associated with visible account compliance and organizational engagement. Those accounts that have more self-generated cues of compliance in addition to organization engagement that are other-generated cues is associated with 16.73 more civic shares on average.

The results from Table 5 below show the four models that, based on my analyses, best describe the data and explain the relationships between the behaviors examined. I did not find direct support for hypothesis two in any of the proposed multilevel models. In fact, I found some evidence to the contrary in that some forms of compliance have a negative relationship whereas other forms have a positive relationship to civic engagement. These analyses do not generate support for the assumption that organizational social media governance has direct effects on civic engagement, but rather that message characteristics are strong factors (in turn, these may be influenced by the governance policy).

The important finding from the analyses summarized in Table 5 below is that county Facebook account behavior matters for different types of civic engagement. If the county wants to generate more Facebook shares by the public, there is a statistically significant association between county account shares and public shares. A one unit increase in county shares is associated with an increase of 27 public shares. Commenting on a post that the county wants to be shared can generate 37.56 shares. These are simple behaviors that the county can perform and they also make sense intuitively. Commenting and sharing posts creates visibility and sends a cue to the public that appears in a Facebook newsfeed. Those behaviors are also likely to get the

Facebook post seen by other citizens beyond the original posting account's potential network. As Facebook shares were considered the "most valuable" by one county employee, the county should focus more on developing interactions between accounts. The value of shares is only considered moderate by Cho, Schweickart, and Haase (2014), who argues that the order of value is the like, share, and comment. Comments are most valuable because they require the most effort. Alternatively, liking a post has a negative effect on the public's likelihood of sharing content. An organization liking a Facebook post by the county results in -9.79 potential shares. Currently, I am uncertain as to why this relationship is occurring.

Table 5 Multilevel model with varying intercept by account

		Civic engagement		Civic likes		Civic comments		Civic shares	
Intercept		37.54	*	35.23	**	0.99		1.32	
Account level									
Visible account compliance		-2.08		-3.05		-.018		0.98	
Non-visible account compliance		-4.86		-3.29		-0.23		-1.34	
Controls	Page likes	.0003		-.0005		.00003		-.0007	
	Account age	-.00009		.0009		-.0001		-.0009	
	Average number of posts	8.88	***	7.19	***	.32	**	1.37	
Message level									
Organization engagement									
Likes		0.35		10.31	***	-0.17		-9.79	***
Comments		49.14	***	7.9	**	3.68	***	37.56	***
Shares		40.61	**	8.91		3.06	***	28.64	**
Media richness (each unit is coded as, No = 0; Yes = 1)									
URL		-21.56	***	-8.49	*	-0.58	*	-12.49	**
Image		5.71		97.86		0.15		4.58	
Video		12.3		20.33	**	1.28	*	-9.31	
<i>Message type</i>	<i>Information-sharing (baseline)</i>								
	<i>Fundraising and sales</i>	-47.61	***	-30.25	***	-2.22	***	-15.14	.
	<i>Events and promotion</i>	-15.59	*	-17.16	***	-0.51		2.08	
	<i>Call to action</i>	-17.15	***	-30.73	***	-0.27		13.85	***
	<i>Dialogue and community building</i>	-9.22		-10.75	*	-0.24		1.76	
Pseudo R squared		0.489		0.377		0.483		0.334	

. < .1, * < .05, ** < .01, *** < .001

The goal of the individual county department for Facebook use is important in considering what behavior on Facebook they are hoping to get from the public as compared to the actual behavior they observe. If the goal is to generate discussion on a post then one other county account commenting on the post can account for 3.68 more comments from the public. Sharing the post belonging to another county account leads to 3.06 comments on average. The type of message, in generating comments on county posts, seems to have less effect on generating that type of engagement. Fundraising and sales types of posts are likely to generate - 2.22 comments.

The direction of the relationship between visible account compliance and the dependent variable changes when comparing Tables 4 and 5. This is likely due to the small sample size, but also some of the message characteristics. The model in Table 5 has statistically significant differences between the intercepts, which means that the account level civic engagement are significantly different from one another when holding all other values constant. This relationship does not occur in the model reflected in Table 4. While the message characteristics are important for the overall model interpretation, they do not add a large amount of explained variance as measured by pseudo R squared. For example, when civic engagement is the dependent variable the pseudo R squared value increases by .09 roughly. The model represented in Table 4 explained roughly 40% of the variance in civic engagement, so the messages characteristics do not add a lot to the model. The major differences between Table 4 and 5 are the effects of organizational engagement in the aggregate versus disaggregate. Organizational likes are not always helpful and in some cases have negative effects on civic engagement. Organizational likes do have a positive relationship to likes from the public, which may create

some sort of liking behavioral spiral. The organization may not get the comments or shares it wants, but lots of likes.

One aspect of social media discussed by researchers and industry folks alike is the frequency of posting. Folks in industry discuss the changes in Facebook algorithms as they pertain to posting frequency (Lee, n.d.), but also point to ranges from one post per day (“Track Social Blog » Optimizing Facebook Engagement – Part 2,” n.d.) to five to ten posts per day. The rule of thumb appears to be that for each additional post on Facebook there is likely to be a decline in likes or comments from the public (Lee, n.d.; “Track Social Blog » Optimizing Facebook Engagement – Part 2,” n.d.), but this depends on the public engaging with that specific account (Wilkerson, 2013). According to my results, for each additional post made there is a 7.19 increase in the number of likes. The important question is whether or not those likes actually mean anything. As noted in the other models in Table 5, more likes on a post have a statistically significant negative effect on sharing, but also have a positive effect on generating more likes. For every one like a post receives from another county account, 10.31 more likes from the public are generated, but the negative effect on sharing suggests that accounts may want to refrain from liking. Two-way symmetry communication has helped non-profits in achieving comments on Facebook (Cho et al., 2014). This suggests that post types that are more dialogic in nature will see increased levels of comments. However, this is not supported in these data. This could be because the post coding schema was designed for non-profits and not for governments.

URLs have statistically significant negative associations with all types of civic engagement. It is important to consider the original goal of the post though. If the posting account wanted the public to click on the link and do something then perhaps the public, by not liking, commenting, or sharing the content, are performing the desired behavior. Thus, the

Facebook posts with URLs are likely to generate engagement with content beyond the account's post, which does not appear as engagement within my data.

Videos and images receive more likes than just text posts. Videos, however, are statistically significant and a video is likely to get 20.33 more likes than just text. It may be in the best interest of the organization to limit videos though as they do not contribute to comments or shares in a statistically significant manner.

The message type seems to have a clear and consistent negative relationship with civic engagement. Specifically, fundraising and sales types of messages seem to contribute to 47.61 fewer potential civic engagement likes, comments and shares than information sharing types of messages. Dialogue and community building do not have a significant association, but in each model the variable is negative in relation to information sharing message types.

Message types that necessitate more action on the part of the public, through dialogue, fundraising, call-to-action, or events tended to have negative effects on engagement. In a similar study of organizational engagement, Saxton and Waters (2014) found that call-to-action posts elicited positive and statistically significantly more comments than information posts. They also found no support for generating more Facebook shares than information posts. However, Table 5 shows that call-to-action types of messages have a statistically significant relationship with public sharing of content within this study. Call-to-action posts receive 13.85 more shares than information sharing posts. Thus, if a county account wants to generate more potential shares of content then a call-to-action type of post is the best option. The public may recognize those specific requests and thus act on them, but also share the Facebook post to elicit more action through their networks.

The results of the multilevel models demonstrate the complex nature of the relationship going on within the organization. The role of governance in coordinating multiple departments, who then coordinate multiple social media accounts, who then engage with the public, is complex. I did not find statistically significant support for my hypotheses linking compliance with outcomes, but there is evidence that the cues used as indicators of compliance had some effect on the public's engagement with the account level posts.

One goal of the ISMSR development was to create an organization-wide effect on the generation of civic engagement across all social media accounts. The qualitative data shows that this occurred through removing "rogue" accounts and acquiring account credentials within the I.T. department. However, the quantitative data do not provide evidence that, regardless of account, there was an effect from compliance on engagement with the public across all accounts.

I can measure, at least on Facebook, the effect of those organizational compliance cues, both visible and nonvisible, and their relationship with the public. To do so, I move beyond my originally proposed models and test the relationship between compliance and civic engagement using a basic linear regression. Removing the account level variable present in the multilevel models allows for an inspection of the general relationship of the social media governance employed by the county and civic engagement. I present these results in Table 6 below.

Table 6 Linear regression examining effects of compliance on civic engagement

		Civic engagement		Civic likes		Civic comments		Civic shares	
Intercept		-56.84	***	-28.45	**	-2.96	***	-25.44	*
Account level									
	Visible account compliance	22.97	***	12.88	***	1.02	***	9.09	***
	Non-visible account compliance	-29.87	***	-16.83	***	-1.28	***	-11.77	***

Table 6 (cont'd)

Message level								
	Organization engagement	22.67 ***	9.78 ***	1.53 ***	11.36 ***			
Adjusted R squared		0.2944	0.205	0.2623	0.1149			
F-statistic		107.9 ***	67.09 ***	92.13 ***	34.28 ***			

. < .1, * < .05, ** < .01, *** < .001

The linear regression shows that for each form of civic engagement visible account compliance has a significant positive association. One unit of increase in visible account compliance is associated with 23 units of civic engagement, 17 likes, 1 comment, and 9 shares. Organization engagement has a similarly statistically significant positive effect in the linear model as demonstrated in the multilevel models. In direct contrast to my hypotheses, non-visible compliance has a statistically significant negative association with civic engagement, civic comments, and civic shares. However, civic likes has a positive association with non-visible account compliance.

In summary, the results from the multilevel regression analyses suggest that the effect of account compliance, visible or nonvisible, in affecting civic engagement is not supported. Table 5 shows that organization engagement through likes, comments, and shares has an important effect on engagement. Specifically, accounts attempting to generate engagement with their content need to be highly strategic in the message composition and how that content is engaged with by other county accounts. If an account wants to spread a message then other county accounts need to share that message, but also the message needs to be framed as a call-to-action. All messages cannot be framed as a call-to-action, however, and each account may need to be

strategic in content delivery. An account may determine that certain content should be designed to get maximum potential engagement whereas other content can be less prioritized.

Chapter 7: Discussion

Macro level Internet governance has largely focused on the coordination of high level technical processes (TLDs, etc.) and organizations (ICANN, etc.) that coordinate those processes (van Eeten & Mueller, 2012). By examining organizational level Internet governance, I have attempted to connect the macro-level Internet governance with micro-level Internet governance. For example, organizations function within the Internet and directly engage with individual users. Organizations act with some degree of control over the behaviors occurring within their defined spaces of influence, but are still bound within the confines of the Internet. Thus, organizations function in a space between macro and micro levels. Oakland County does this by coordinating the social media behavior of departments, agencies, and employees through the SMP and ISMSR.

My results suggest that the meso-level governance mechanisms employed by the county did not have a strong measureable influence on micro-level interactions. Non-visible account compliance factors, a formal rule-based mechanism of coordination, had negative a relationship with micro-level interactions. The interviews further evidence this finding when participants said that the policies, as mechanisms of governance, were relatively weak. For example, the SMP was helpful in coordinating and controlling accounts, one participant said:

“...to make sure there’s continuity, that if something does happen, if somebody’s on vacation, out ill, whatever that may be that...the mechanisms are in place there that these are county accounts and they’re, you know, important.”

Oakland County does not appear to be different in their design of other meso-level governance. Corporate entities used similar approaches in designing and implementing social media governance. Specifically, focusing on risk mitigation and guidance for social media use at

the organization (Káganer & Vaast, 2011). However, both from the qualitative and quantitative findings the results suggest that policy is still just a policy. According to one participant:

“Where we probably need to do some work is a policy is a policy. Like anything else it’s words on paper. Really to do and bring meaning to it you have to sit down and have conversations with people about it that they understand and have buy-in.”

The multilevel regressions indicate that visible and nonvisible account compliance, indicators of organizational social media governance, had little if any effect on the engagement from the public. If the county policies were only meant to protect against risk and provide guidance then effectiveness of the county’s governance may have been successful. Although in terms of generating engagement, the effectiveness of formal rule-based governance mechanisms may not be the best option. It may also be that the specific rules that were formulated were ineffective.

I cannot determine the effectiveness of the organizational social media governance strategy, including formal rule-based mechanisms. On the one hand, the SMP was effective in removing rogue accounts and creating a centralized location for social media account credentials. On the other hand, the data does not allow distinguishing whether it was the rules that did not contribute to civic engagement because of the rules themselves or the rule as a mechanism. It is likely that the rules themselves were effective only insofar as the employees running the accounts were willing to follow them. Thus, the effect of those rules on civic engagement would be completely determined by the employee running the social media account and their willingness to comply. This is an issue that deals with both compliance and buy-in. The rules cannot function without both happening at some level, but in order to be the most effective buy-in may be more necessary than compliance.

According to Grabosky (2013), the process of coordinating the Internet at the highest levels has shifted away from the government, which may require a greater multi-stakeholder

approach to achieve effective governance. One way to conceptualize Grabosky's point lies in the development and use of Web 2.0 technology by local governments. Oakland County, by using a platform they cannot fully control, like social media, relinquishes some power to the private sector. Within the Web 1.0 framework, local government could house a server within their own space. Local government using Web 2.0 technology and social media must work within the framework of the platform of choice. The coordination of those different communication platforms, website versus social media profile, has in many ways declined for the organizational actor. Oakland County must function within both Web 1.0 and 2.0 in order to be an effective communicator and so must continue to adjust the Internet governance strategy used. This is further demonstrated by the interviewees indicating that they need to do more than just enact a policy, but must have conversations and get more buy in from other departments, agencies and employees.

Mueller (2010) argues that we must create the system we choose to live in. The Internet has not become a place of anarchy or fascist state. Oakland County is attempting to do this through the creation of formal rules, but also through the involvement of multiple stakeholders. Meso-level Internet governance will likely continue to require a mixed-approach depending on citizen needs and governmental needs. Formal rules will be needed similar to Oakland County's that allow for some micro-level coordination, but the rules still act as guides through the process.

In an attempt to develop meso-level Internet governance research, I have attempted to expand on how researchers can use an Internet governance framework in the practices of meso-level organizations. Expanding on what van Eeten and Mueller (2012) recommended, I qualitatively assessed Oakland County's social media governance. I developed a novel set of measures that would test how that social media governance affected the actual engagement from

the public. Meso-level organizations are clearly developing and implementing organizational social media governance through a variety of mechanisms. It is feasible to think that this mixed-method approach could be applied to other Internet governance arrangements that move beyond the coordination of macro-level Internet processes.

The Impact of Organizational Social Media Governance

Organizational social media governance has a mixed and complex interaction with civic engagement as measured by Facebook likes, comments and shares. Results from the quantitative analyses of Facebook accounts and messages suggest that, if anything, formal rule based governance may have a negative relationship with civic engagement. Civic engagement is associated with visible account compliance when not controlling for account level metrics. The qualitative data suggest that Oakland County's organizational social media governance through the SMP was effective in reducing rogue accounts and coordinating the county's social media accounts overall. The two methods suggest a mixed picture in terms of how effective the social media governance was in moving the county towards generating civic engagement. On the one hand, the county created a more unified and focused social media strategy, but the quantitative results suggest that the effect of some compliance was negative on engagement. The underlying issue is whether or not account level cues actually matter in generating engagement and whether the organization should be concerned with minor compliance infractions.

Messages that receive organizational engagement tend to generate more engagement than messages that do not receive organizational engagement. According to warranting theory, each like, comment, or share from an officially recognized county account sends a cue to the public that this is a credible source. The message level cues may not come from the account level

compliance, but from the actual organizational engagement with that specific message.

Alternatively, the Facebook newsfeed does not necessarily allow for account level variables to act as cues within the newsfeed structure, except for profile photo and account name.¹⁵ These results may differ from prior research for this very reason; organizational cues matter less in engagement with messages when the messages are being viewed away from the profile.

However, the cues may still be important for the initial engagement of liking the Facebook page belonging to that account. Results actually suggest that this is plausible as total page likes for accounts was significant for accounts based on certain cues.

According to the interviews, Facebook shares were more valuable than any other form of engagement because they increase content lifespan and reach a wider audience. Specifically, one participant said:

“So, a like is a lot less commitment than a comment, because people like things all the time so there’s less weight to it. Comments are great because you can tell someone is engaged and they’re thought provoked, but a share is the most valuable. People don’t share that often. It’s only when they share they’re actively taking that content and sharing it with their friends. They’re putting their name behind the content too, more than just a like or a comment. So, a share is the most valuable, so that share on Facebook, a retweet on Twitter, a repost on Instagram, a repin on Pinterest. Those would be the shares.”

This is also noticeable in the multilevel models. Organization accounts sharing Facebook posts belonging to other county departments were associated with positive increases in comments and other shares from the public. Organizational accounts help to create greater network reach by sharing the content. Intuitively the county is aware of this based on the interviews.

Facebook page likes are an important step in the engagement generation process. The initial like provides the basis for support and future civic engagement. I explored the quantitative data further by running OLS regressions with total page likes as the dependent

¹⁵ I ran several models using only account level variables that would be visible when responding to a message, but results were not statistically significant.

variable and found that page likes are actually associated with several aspects of the visible and nonvisible account compliance. For example, the presence of the official county name has a positive significant relationship with page likes even when controlling for the accounts. In addition, the presence of an email addresses and phone number have a negative relationship with page likes. Page likes are also positively associated with the presence of some official text discussing terms of use on the specific account page. However, the more visible this official text is a negative association occurs with page likes.

The importance of cues at the account and message level is also different within the qualitative data. Coordination of the account level variables is a primary function of the SMP, which only lists one or two message level rules and the rest focus on the account. The ISMSR attempts to coordinate the engagement strategy between the public and the county, but does not provide many formal rules. This disparity is also noticeable from the interviews. The interviewees mentioned that other departments in the county were unwilling to share account level control, but through time and informal coordination strategies the departments have slowly complied. Thus, the SMP was successful in coordinating the account level aspects of the organization. It is likely that the goals for coordinating those accounts had more to do with legal and corporate factors than any civic engagement goal. Account level governance does not seem to be associated with any level of civic engagement though, but in fact may contribute to less civic engagement. This result is somewhat intuitive as social media is seen as a more informal space for communication whereas a website must be a similar experience across the various departments.

The case study led to the creation of several internal and external outcomes that the county wanted to achieve. The internal goal of social media governance led to the creation of a

more formal rule based coordination where the various departments, under different political units, were expected to give power to other departments on equal footing. The interviews suggest this was difficult to achieve as certain accounts have resisted these efforts, wanting to maintain autonomy and control. The county social media team could potentially use the formal SMP to demand compliance, but have found that strategy to be a last resort for coordinating accounts. Instead, a more relational and informal approach has been used to establish greater compliance with accounts. The quantitative data confirms this indirectly. In every model, the more legalistic rules that indicated compliance, such as sharing account credentials, had a negative overall effect on civic engagement. Thus, while internally a formal governance mechanism was developed to coordinate behavior throughout the organization, both the qualitative and quantitative data suggest that an informal process was used and more formal governance results in a decrease in the overall goal of civic engagement.

The opportunity here is for departments to operate individually and with some flexibility within a basic governance framework. Organizations may need to utilize formal rule based governance strategies to initiate compliance and have a fallback should any rogue accounts spring up. However, an informal coordination process is likely to be more effective in generating civic engagement with social media messages, as in most circumstances the account level cues will be separate from the actual message cues. Hayes and Carr (2015) found that organizations using blogs saw more engagement when cues were present. These cues however were in a specific type of social media, blogs. Blogs offer different affordances where the cues present are visible when individuals are deciding on whether they want to engage with an account or message. Thus, it may be that social media with different affordances will also

change the way governance should be implemented. The website being utilized by the department within the county may wish to operate within their own parameters.

Recommendations for Organizational Social Media Governance

Governance is a broad theoretical framework that allows for an examination of how alternative coordination affects outcomes. The broad approach within governance theory provides a starting framework for developing a social media coordination strategy, but the specifics of that strategy will most likely need to be tailored to the organization and social media used. I present here several recommendations for county-based governmental organizations in implementing social media governance. According to Flyvbjerg (2006), the case study is important to both testing theory. After all, as he notes, if you find a highly favorable case that does not act in the theorized way then the chances of validating that theory outside the case is far less. Thus, I do not pretend to think that my case study approach is the absolute perfect example of organizational social media governance, but it is likely to be a very good example. Therefore, I argue that the case study is useful in suggesting that this method of organizational social media governance evaluated through the lens of Internet governance needs more development to be a successful explanatory framework. These recommendations provide a good first step in coordinating organizational social media use.

Employees of the county would likely benefit from some level of hierarchical coordination, but largely understand their user bases and can manage individual accounts effectively with little intervention. Difficult, as this may be, the county may want to allow for organic growth of social media accounts to continue, while employing a semi-structured approach to content creation and delivery through social media platforms.

Not all accounts are similar in their goals, but the use of specific social media platforms for specific goals may benefit civic engagement. Accounts may want to consider using Facebook for specific types of content that are interpreted more positively. Certain message types, such as fundraising, have a clear and consistent negative association with civic engagement. Thus, those posts and the rate of those posts may need to be limited.

The goal of the county strategy may not be to create engagement, but traction with content outside of Facebook. The presence of URLs within Facebook content has a consistent negative association with civic engagement. This may actually be positive for county website traffic. If people are clicking on the URLs and not engaging with the Facebook post then the goal of that post may have been achieved. The goal of the county account and the message needs to be clearly understood to assess whether or not the delivery is effective.

From a practical standpoint, I do not find conclusive evidence that one practice or another will generate more or less civic engagement. The bottomline for Oakland County is that when county accounts mutually share content there seems to be an association with increased engagement from the public. However, this does not mean necessarily that all accounts should be sharing all content between one another. Each Facebook account belonging to Oakland County is likely to have an audience specific to it, which may think content from other county accounts is more or less useful. There may also be users who are following multiple county accounts. These users may be bombarded by the same content if those county accounts chose to share the same content. Thus, the effect of content, audience, and purpose of county account must be considered prior to sharing between accounts.

Future research

I see a number of opportunities for this research to move forward as the county I work with is one of the early adopters of social media policy and governance. The Internet appears to be moving towards a more participatory environment; governments' will likely also transition to more participatory Internet platforms. This will likely necessitate a level of coordination not present in many state and local governments across the U.S. A key next step in understanding Internet governance during this transition will be to do a comparison across counties in order to allow for variation in the local context. This will provide much greater generalizability.

City and municipal social media may be a more effective context for understanding social media governance. The county is a very complex political unit that has unclear boundaries in terms of the political and citizen motives. People do not generally talk about what county they are from, but identify with a city. Thus, they may be more inclined to participate civically with the city. The city also has a more manageable hierarchy, at least in cities where the mayor is seen as the executive. City government comparison study

A longitudinal study examining several years of data surrounding the implementation of a social media policy is a potential next step. This would allow an exploration of how account level changes over time, due to organizational social media governance, potentially led to increased, decreased or stagnant engagement.

Potential Limitations

I examine a single case in this research limiting my ability to generalize to other organizations and governmental bodies. The single case provides an in-depth examination of an

exemplar case. While this case is useful for understanding the inner workings of Internet governance within the meso-level, this work needs to be tested elsewhere.

Characteristics of individual users are not be accounted for within this research. This poses an issue on two fronts: 1) the individual users may have changed dramatically as the increase in Facebook users and their engagement over time in the U.S. is well documented (Duggan et al., 2015). This could mean that potentially late adopters have some different behaviors online that affect the overall engagement on the Facebook pages. 2) County Facebook pages have seen similar increases in Facebook page likes over the past four years. Newer pages are potentially at a disadvantage for engagement. I account for the later issue by controlling for the number of page likes as a proxy for potential views of content. I cannot account for individual user demographics or variability in how individual users engaged with each account. However, a common rule in Internet participation may offer a sufficient explanation to why this potential limitation has little effect.

Online engagement in almost all forms has a type of power law distribution where 20% of the users do 80% of the engagement (Faloutsos, Faloutsos, & Faloutsos, 1999). The other 80% of users are typically called ‘lurkers’ meaning they watch, listen, and consume content, but do not directly create or engage with that content (Nonnecke & Preece, 2001). I expect the same types of patterns in Facebook pages I am observing. I suspect that a power law distribution will be present in all the county accounts. Accounts that have high numbers of potential viewers will see a small percentage of those users actually engage with content. The same will hold true for accounts with low potential viewership through fewer page likes. I suspect that the power law distribution of engagement will still be present despite the differences in page likes. However, this the variation in account viewership are still a potential limiting factor to my research.

APPENDICES

Appendix 1: Oakland County Organizational Chart

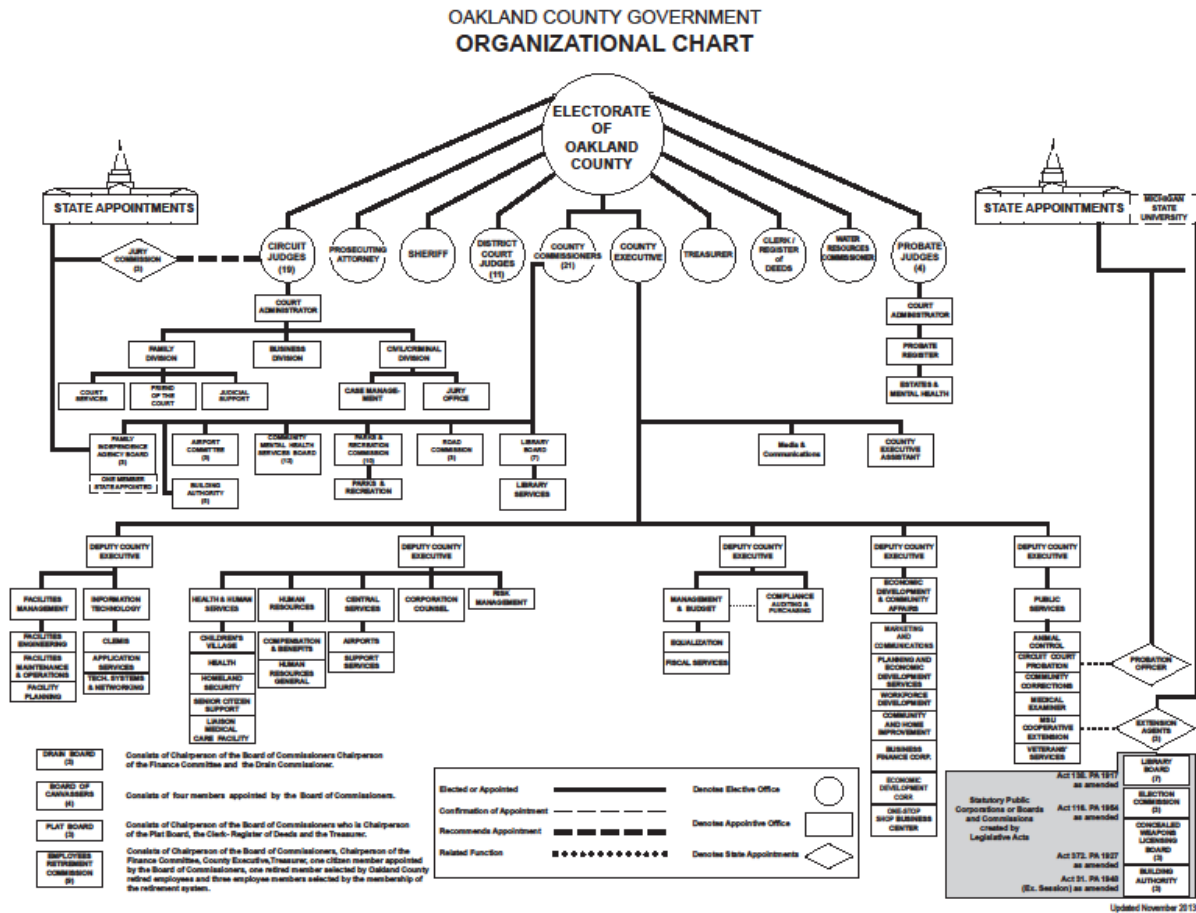


Figure 6 Oakland County Organizational Chart

Appendix 2: Sixteen Proposed Multilevel Regressions

Table 7 Varying intercept multilevel models by account on the effects of visible/nonvisible compliance on various types of civic engagement

		Civic engagement		Civic likes		Civic comments		Civic shares	
Intercept		43.18	*	34.53	**	0.58		8.07	
Account level									
Visible account compliance		-1.83		-2.48		0.02		0.63	
Non-visible account compliance		-7.39	*	-3.57		-0.47	*	-3.36	
Controls	Page likes	-0.00		0.00		-0.00		-0.00	
	Account age	0.00		-0.00		0.00		0.00	
	Average number of posts	12.17	***	6.87	***	0.56	***	4.74	**
Message level									
Organization engagement		23.19	***	9.81	***	1.62	***	0.12	***
Media richness		-11.19	**	-1.83		-0.26		-9.11	**
<i>Message type</i>									
<i>Information-sharing (baseline)</i>									
<i>Fundraising and sales</i>		-57.66	***	-33.13	***	-3.05	***	-21.48	*
<i>Events and promotion</i>		-15.39	*	-18.45	***	-0.64	.	3.7	
<i>Call to action</i>		-12.2	*	-32.16	***	0.02		19.94	***
<i>Dialogue and community building</i>		-7.46		-0.11	*	-0.28		4.02	
Pseudo R squared									
		0.425		0.366		0.349		0.202	

. < .1, * < .05, ** < .01, *** < .001

Table 8 Multilevel model with varying intercept by account

		Civic engagement	Civic likes	Civic comments	Civic shares
Intercept		37.54 *	35.23 **	0.99	1.32
Account level					
	Visible account compliance	-2.08	-3.05	-1.75E-02	0.98
	Non-visible account compliance	-4.86	-3.29	-0.23	-1.34
Controls	Page likes	0.00	-0.00	0.00	0.00
	Account age	-0.00	0.00	-0.00	-0.00
	Average number of posts	8.88 ***	7.19 ***	0.32 **	1.37
Message level					
	Organization engagement				
	Likes	0.35	10.31 ***	-0.17	-9.79 ***
	Comments	49.14 ***	7.9 **	3.68 ***	37.56 ***
	Shares	40.61 **	8.91	3.06 ***	28.64 **
	Media richness (each unit is coded as, No = 0 and Yes = 1)				
	URL	-21.56 ***	-8.49 *	-0.58 *	-12.49 **
	Image	5.71	97.86	0.15	4.58
	Video	12.3	20.33 **	1.28 *	-9.31
<i>Message type</i>	<i>Information-sharing (baseline)</i>				
	<i>Fundraising and sales</i>	-47.61 ***	-30.25 ***	-2.22 ***	-15.14 .
	<i>Events and promotion</i>	-15.59 *	-17.16 ***	-0.51	2.08
	<i>Call to action</i>	-17.15 ***	-30.73 ***	-0.27	13.85 ***
	<i>Dialogue and community building</i>	-9.22	-10.75 *	-0.24	1.76
Pseudo R squared		0.489	0.377	0.483	0.334

. < .1, * < .05, ** < .01, *** < .001

Table 9 Multilevel model varying intercept by account

		Civic engagement	Civic likes	Civic comments	Civic shares
Intercept		-217.2	-642.3	-82.45 .	507.51
Account level (each unit is coded as, No = 0 and Yes = 1)					
Visible account compliance					
Page identification and contact information					
	Identify The county	0.2	80.75	9.53 .	-70.35
	Official name	279.1	738.8	90.71 .	-550.42
	Phone	-36.48	-103.8	-11.94 .	79.23
	Address	236	633.9	76.47 .	-474.4
	Email	-167.1	-407.7	-50.43 .	290.96
Social media use guidelines					
	Some text	363.2	1024	119.2 .	-779.53
	Official language	237.8	685.9	84.48 .	-532.54
	Visibility	-466.4	-1222	-144.1 .	899.14
Non-visible account compliance					
Credentials	Facebook	57.14	120	15.85 *	-78.7
ISMSR					
comp.	Aware	-140.2	-372.3	-43.07 .	275.12
	Educated	34.45	76.77	8.17	-50.5
	Up-to-date	197.5	557.4	66.24 .	-246.15
Controls					
	Page likes	0.00	0.01	0.00	-0.01
	Account age	0.05	0.12	0.02 .	-0.09
	Average number of posts	-88.82	-277.4	-33.44 .	222
Message level					
Organization engagement		25.1 ***	10.53 ***	1.75 ***	12.82 ***
Media richness (each unit is coded as, No = 0 and Yes = 1)					
		-14.03 ***	-3.32	-0.42 .	-10.3 **
Message type					
Information-sharing (baseline)					
Fundraising and sales		-58.57 ***	-33.42 ***	-3.06 ***	-22.08 **

Table 9 (cont'd)

<i>Events and promotion</i>	-12.71	.	-18.62	***	-0.52	6.42
<i>Call to action</i>	-12.22	*	-32.81	***	8.71E-03	20.58 ***
<i>Dialogue and com. building</i>	-8.68		-12.56	**	-0.3	4.19
Pseudo R squared	0.434		0.372		0.364	0.211

. < .1, * < .05, ** < .01, *** < .001

Table 10 Multilevel model with varying intercept, examining all individual variables

		Civic engagement	Civic likes	Civic comments	Civic shares
Intercept		-26.71	-656.2	-57.53	687
Account level (each unit is coded as, No = 0 and Yes = 1)					
Visible account compliance					
Page identification and contact information					
	Profile photo	removed	removed	removed	removed
	Identify The county	-1.13	81.47	6.7	-89.3
	Official name	52.43	748.6	63.33	-759.5
	Phone	-0.91	-106.2	-7.87	113.2
	Address	63.95	642.2	54.89	-633.2
	Email	-64.24	-415.9	-37.01	388.6
	Website	removed	removed	removed	removed
Social media use guidelines					
	Some text	-7.94	1029	75.85	-1113
	Official language	35.77	696.2	59.39	-719.9
	Visibility	-56.49	-1233	-95.47	1272
Non-visible account compliance					
Credentials	Facebook	1.77	125.6	9.43	-133.3
	Other (Excluded, due to missingness)				
ISMSR compliant	Aware	-16.69	-377.6	-28.25	389.1
	Educated	18.5	78.46	5.76	-65.72
	Up-to-date	16.08	562.4	44.78	-591.1
Controls (interval data)					
	Page likes	-0.00	136	0.00	-0.01
	Account age	0.00	0.13	0.01	-0.14
	Average number of posts	-0.44	-279.8	-22.67	302
Message level					
Organization engagement					

Table 10 (cont'd)

	Likes	2.12		11.89	***	-0.08		-9.69	***
	Comments	49.53	***	8.02	**	3.72	***	37.79	***
	Shares	47	***	9.12		3.36	***	34.52	***
Media richness (each unit is coded as, No = 0 and Yes = 1)									
	Text	removed		removed		removed		removed	
	URL	-23.51	***	-9.93	**	-0.68	*	-12.9	**
	Image	4.19		-0.63		5.73E-02		4.76	
	Video	11.81		19.07	**	1.25	*	-8.51	
<i>Message type</i>	<i>Information-sharing (baseline)</i>								
	<i>Fundraising and sales</i>	-47.95	***	-30.65	***	-2.21	***	-15.09	.
	<i>Events and promotion</i>	-13.56	*	-17.09	***	-0.44		3.97	
	<i>Call to action</i>	-16.77	***	-31.24	***	-0.25		14.72	***
	<i>Dialogue and community building</i>	-9.57		-11.88	**	-0.22		2.53	
Pseudo R squared									
		0.494		0.384		0.491		0.34	

. < .1, * < .05, ** < .01, *** < .001

Appendix 3: Semi-structured Interview Protocol

Interview Questions

This interview is meant to help the county and I better understand the development, implementation, and success of the county's overall social media policies and strategies. Prior to beginning, I want to inform you that this is research performed in fulfillment of my Ph.D. Dissertation with Michigan State University. The county has offered to assist in this process. However, you are not required to participate in this interview and can choose to stop at any time. Please take a moment to look at the consent form. [OFFER CONSENT FORM]

OK. I am going to begin the interview now. [TURN ON RECORDING DEVICE]

Please feel free to ask for any clarification during this interview. There are 5 main themes that I want to cover with a set of questions in each. Please feel free to elaborate on any question, idea, or topic you would like to address. This is more of a conversation than a direct interview and the following topics and questions are guidelines.

[TOPIC 1]

OK. To begin, I'd like to get to know you and your role at the county.

1. What is your title and department?
2. What are your responsibilities?
3. What are your responsibilities specifically related to the county's use of social media? What about in relation to your department's use of social media? Do these two roles/responsibilities ever interfere with the other?

[TOPIC 2]

OK. The second topic explores the subject of the development of the county's social media policy and strategy.

1. What do you see as the reasons for the social media policy?
 - a. And the strategy?
 - b. What are some of the differences?
2. Why was the social media policy created?
 - a. And the strategy?
3. How was the policy created?
4. Who led the endeavor? Were there any disagreements about the policy?
5. How was the strategy created? Who led the strategy creation? Were there disagreements in the formation of the strategy?
6. Questions related to governance and county wide use of social media:

- a. Does the county still operate under the Social Media Operating Procedures Handbook from 2010?
- b. What was the reason for creating new county documents specifically the Social Media Policy passed by the executive board in 2013?
- c. What was the reason for creating the new social media strategy guidelines adopted in 2013?
- d. Are there differences in how the 2010 operating procedures and 2013 strategy guidelines used or implemented?

[TOPIC 3]

OK. Let's move on to the third topic, which is about the internal expectations according to the strategy and policy.

1. What are the expected effects of the policy on the county?
 - a.
2. What are the expected effects of the strategy on the county?

[TOPIC 4]

OK. The fourth topic is about internal compliance with the social media policy and strategy.

1. The social media policy document and the social media strategy document seem to be coordinating the county's use of social media in a certain way.
 - a. What do you think the goal of that coordination is?
 - b. Do you think that goal of coordination is shared by other units in the county? If not, why?
2. In the Social Media Strategy document there is a focus on posting content between brands, I have several questions about that:
 - a. How do you define a 'brand'?
 - b. How do you determine if content is brand related to the posting account?
 - c. How do you know when/what content to share between departments?
 - d. How do you define brand affiliated content?
 - e. Do you have examples of brand vs. non-branded Facebook content?
 - f. What is the method for measuring brand advocacy? Do you have specific brand advocates in mind? If so, who are they?
3. There's a discussion in the social media strategy (2013) about achieving metrics that are SMART.
 - a. Have any of these been developed further? In what ways?
 - b. Have there been or are there planned county-wide social media meetings? Discussed on page 7. Or any type of training?

[TOPIC 5]

OK. The fifth topic is about the external goals and expectations of the county's social media policy and strategy.

1. The county has different units that provide different services to county citizens. Overall, what do you think the goal is for the use of social media by the county in general? Why is that?
2. What about the actual outcomes? [negative and/or positive]
 - a. Do you think the public has responded to the strategies goals? In what ways?
3. I'd like to know some of your personal intuition about the social media strategies and policies implemented over the past 5 years.
 - a. Are there differences between the two strategies that would be apparent in the USE of Facebook by the county?
 - b. Did the county actually follow anything from the Social Media Operating Procedures Handbook from 2010?
 - c. What is your general feeling about the success of the various social media strategies?
 - d. Are there concrete ways we could measure how effective the 2013 policies have been in generating your goals?
 - e. What goals do the county have for social media use other than what is stated in the official documents? What are the perceived goals of social media use that may not be written down formally?

[WRAP UP]

In wrapping up, is there anything you'd like to add to our discussion? Any thoughts you had, but didn't get to express them?

Thank you for your time.

[END INTERVIEW]

Appendix 4: Content Coding Directions – Account Level Variables

For each of the 17 Facebook accounts you will need to code 15 variables. I have provided an Excel spreadsheet with this setup in the appropriate format. On the rest of this instructional sheet, I provide a set of directions on how to code each variable for each account.

For each variable in the list, you will need to code the appropriate value for that account. If you do not know the appropriate answer please mark that in the Excel sheet where you would have put the code. Explain in that space why you didn't know the appropriate code to give that account and variable.

Page identification and contact information variables

Use the following website to find the official name, phone, email, address, and website for each department. The information on the Facebook Account profile page should match what is listed here: <https://www.oakgov.com/directory>

The following categories should be coded under the appropriate column in Excel with the appropriate code. For any of these categories, if any of the following categories are not visible then assign a code of 0.

To the best of my knowledge, the servicemarks used below in the coding are available to county employees.

- *Profile photo* – Coded as 0 or 1. If the account has an official county profile photo based on the county servicemarks it will be considered compliant (Code 1). According to the SMP, “You must use a County-owned servicemark exactly as it appears in the County’s Media Management System” (p. 3). Thus, the servicemark needs to match whatever is present in the media management system. A servicemark that does not match will receive a code of 0.
- *Identify Oakland County* – Coded as 0 or 1. Accounts that contain the name, “[redacted]” will be considered compliant (code 1). If the Account name does not contain the terms “[redacted]” then it will be coded as a 0.
- *Official name* – Coded as 0 or 1. To be considered compliant (code 1) the account must use the same name as it appears on the county website. Check this by going to the official county website for this account. This can generally be found on the profile page of the account. If the Facebook account name does not match the name on the website give a code of 0.
- *Phone* – Coded as 0 or 1. A code of 1 will be assigned if the official phone number as listed on the county website is present. If the phone number does not match give a code of 0.
- *Address* – Coded as 0 or 1. The same address as listed on the county website. Give a code of 1 if the address listed on the Facebook account is the same.

- *Email* – Coded as 0 or 1. The same email address as listed on the county website. Give a code of 1 if the email listed on the Facebook account is the same as the email listed on the contact. Compliant is coded as 1.
- *Website* – Coded as 0 or 1. The URL listed must link to the official county website for that particular Facebook account. By clicking on the URL listed in the Facebook account are you taken to the same website if you were to click on the directory link within the previously mentioned directory page. If you are taken to the same website assign a code of 1, but if the Facebook account page contains no website or you are taken to a different one assign a code of 0.

Social media use guidelines

The following statement, and variations of it, appears on the various account profile pages. It can be visible in a Note or under the Page Description. The set of codes below are looking for variations of and how visible the following text is:

“The County reserves the right to remove inappropriate comments including those that are discriminatory, obscene or sexual in nature, threaten or defame an individual or entity, support or oppose political candidates or proposals, violate the intellectual property rights of another party, promote illegal activity or commercial products or services or are not related to the topic in the original posting. Keep in mind that all of your posted comments are public records and subject to disclosure. Requests for public records may be submitted to corpcounsel@oakgov.com” (SMP, 2013, p. 3).

This statement, and variations of it, appear in different places on the various Facebook accounts and thus have different levels of visibility. A set of variables will be coded for how “prominently displayed” (SMP, p. 3) and accurate these guidelines are.

- *Some text* – coded as 0 or 1. If any text guidelines are posted a 1 will be coded. This will include outdated policy language or unofficial language. Any language about use of the Facebook page by individuals coming to the page should be coded as 1. The presence of no language will be coded as 0.
- *Official language* – coded as 0 or 1. If the exact official language is used as outlined above a code of 1 will be given. If the language does not match or alters the official statement in any way it will be coded as a 0. If there is no language present on the Facebook account page it will also be coded as a 0.
- *Visibility* – coded as 0 or 1. If ANY language about guidelines for use of the Facebook page are posted in the “About” section of a Facebook Account page it should be coded as a 1. If the language is posted under a Note or some other section or if there is no language at all a code of 0 will be assigned.

Account credentials

All social media accounts operated for county purposes need to store account credentials with the Information Technology Department. Per those instructions, this code is meant to understand

specific Facebook account credential storage and all other social media account credential storage. There are two variables within this section.

- *Facebook* – coded as a 0 or 1. If the I.T. department has on record the Facebook account login credentials (username/password) then assign a code of 1. No Facebook account credentials will be coded as 0.
- *Other* – coded as a 0 or 1. If the department that operates the Facebook account in question and has shared OTHER social media account login credentials with the I.T. Department then assign a code of 1. If the department has not provided those other social media account credentials then assign a code of 0. If no other social media accounts are owned by that department give a code of NA.

ISMSR

The following codes are meant to help establish how aware and educated a certain account/department is about the overall county social media strategy outlined in the ISMSR (2013). These codes are meant to identify specific aspects of the social media strategy and how each Facebook account has developed as part of and within the overall strategy. Please note that you could have an outdated strategy and thus had been educated on the ISMSR, but your strategy is not considered up-to-date.

- *Aware* – Coded as 0 or 1. A code of 1 will be used if they have heard or been told about the social media strategy, but not gone through any formal or informal training on the social media strategy. A code of 0 will be given if the account operates outside of the social media strategy entirely.
- *Educated* – Coded as 0 or 1. An account will be coded as a 1 when the account has gone through the official ISMSR training, been taught about the training through an informal process, or been taught the strategy through proxy. Those accounts that have never participated in informal or formal learning of the strategy will be coded as 0, whereas those who have learned of the strategy through any means or have evidence of that strategy will be coded as 1.
- *Up-to-date* – Coded as 0 or 1. The account must have gone through a social media strategy within the past year to be coded as 1. Only accounts that have gone through ISMSR social media strategy training/planning will be coded as a 1. Accounts that have never participated or their training is old will be coded as a 0.

Appendix 5: Content Coding Directions - Post Level Variables

For each of the Facebook posts you will need to code Facebook accounts you will need to code 15 variables. I have provided an Excel spreadsheet with this setup in the appropriate format. On the rest of this instructional sheet, I provide a set of directions on how to code each variable for each account.

For each variable in the list, you will need to code the appropriate value for that account. If you do not know the appropriate answer please mark that in the Excel sheet where you would have put the code. Explain in that space why you didn't know the appropriate code to give that account and variable.

Two Coding Rule

If a Facebook post fits into two categories then assign a primary code (1) and a secondary code (2). The only post that could technically be one of these categories in every instance includes "information-sharing". If a primary code is applied to the other options then "information-sharing" should not be a secondary code.

Message type

Five different codes will be applied to the posts based on the specific message being communicated. The five codes will be based on the focus of the Facebook account's message, which will include information-sharing, fundraising and sales, events and promotion, call to action, and dialogue and community building. Each measure will be dummy coded where 0=No and 1=Yes indicating that the message in question is that type. The codes are mutually exclusive, which means a post cannot be multiple types of message.

- *Information-sharing* – a message will be considered information-sharing if it is "focused on the organization in question, its mission, and its programs and services, or other relevant information the organization believes is of interest to its fans" (Saxton & Waters, 2014, p. 286).
- *Fundraising and sales* – this is a message that requests or acknowledges public assistance to the organization through donations, selling products or services for the organization or on behalf of the organization. This includes any information regarding donations that have been received or are being asked for as well as promotional sales that benefit the organization or other organizations.
- *Events and promotion* – messages that highlight "opportunities for stakeholders to become engaged with the organization by participating in an online or offline activity hosted by the organization" (Saxton & Waters, 2014, p. 287). Any online or offline event that has happened or will happen will be included in this category including events that do not appear to be related to the organization.
- *Call-to-action* – messages "empowered stakeholders to become involved with the organization through methods that were not contributing financially to the organization or

attending events; these updates ranged from urging stakeholders to sign petitions and contact legislators to encouraging volunteering and advocacy for the organization with family and friends” (Saxton & Waters, 2014, p. 287). This will also include specific language requesting folks to share information or raise awareness about a topic.

- *Dialogue and community building* – this message code focuses on posts that attempt to engage directly with users or other social media accounts that may be alternate organizations. The message “shows that the organization is attempting to reach out to others in a genuine manner to create an online community of supporters” (Saxton & Waters, 2014, p. 287). This includes posts that ask opinions of other users, ask for details about something, or pose questions to their page.

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