

## ABSTRACT

Title of Dissertation: INFORMATION AT THE NEXUS: YOUNG PEOPLE'S PERCEPTIONS OF GOVERNMENT AND GOVERNMENT WEBSITES

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This dissertation focuses on the perceptions that young people have of federal government websites and of the U.S. government, as well as exploring possible connections between the perceptions of government and government websites. Not only is this a virtually unstudied area of e-government and youth information behavior, but it is also of critical importance as e-government becomes increasingly necessary to Americans' everyday lives.

The case study included 37 youth across four middle-schools in the mid-Atlantic U.S. who all participated in an after-school program at which they met once per week for 10-12 weeks to research a health topic of interest. During these sessions, they participated in several data collection activities, including an interview, a survey,

a word association activity, an evaluation of the homepage of a government website, and card-sorting. The study also included over 60 hours of participant observation.

The study finds that while participants were slightly more likely to have a negative perception of government than to have a positive one, the majority of participants viewed e-government favorably. Perceptions were based on a variety of factors, though perceptions of government were most commonly made through assessments of policy, while perceptions of e-government most commonly focused on the source of the information (i.e. the government). Perhaps most significantly, while there was no overwhelming connection between overall perceptions of government and e-government, participants' views of information-related policies frequently were raised during discussions about both government and e-government. More specifically, participants focused on such issues as government secrecy, surveillance, and the security of websites against hackers when evaluating government and e-government. Overall, these findings shed light on the opinions of an understudied population in e-government research, offer insight into political socialization as it relates to government information, and inform both policy-makers and educators on how to best disseminate government websites to youth.

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GOVERNMENT AND GOVERNMENT WEBSITES

by

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## **DEDICATION**

*To the extraordinary BT, for so many things, not the least of which is understanding  
the significance of this dedication, and loving me more for it.*

## ACKNOWLEDGEMENTS

It is often said that it takes a village to raise a child. In my case, this applied to my doctoral studies. To name everyone who contributed in some way to this dissertation would take a document as long as the study itself. That said there are a number of individuals who deserve to be singled-out here for their contributions to this work. Firstly, my doctoral adviser Dr. Mega Subramaniam has been an incredible mentor over the years. Her patience, guidance through academia, and knowledge of research have been invaluable to my successful completion of the program. Likewise, my honorary second adviser, Dr. Paul Jaeger, has treated me like a colleague over the years, and I have learned an incalculable amount of knowledge of the profession because of this. Mega and Paul often acted as a tag team of coach and cheerleader, and without their support I would not have had nearly the successes that I have had over the years.

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## **CHAPTER 1: INTRODUCTION**

The purpose of this dissertation is to understand the perceptions that a select group of middle-school aged youth have of government and online government information. In addition, the study examines whether young people's perceptions of government are connected to their perceptions of online government information. Finally, it explores the practical impact of these findings through both the lenses of both policy and education.

### **BACKGROUND OF THE RESEARCH**

This study grew out of a larger research project (“Improving the Health Literacy, Health-Related Self-Efficacy, and Long-Term Health Outlook of Disadvantaged Youth through the Facilitation of Scientific Inquiry and Information Literacy Skills”) ([www.hackhealth.umd.edu](http://www.hackhealth.umd.edu)), led by two University of Maryland professors, Drs. Mega Subramaniam and Beth St. Jean, and funded by the National Library of Medicine, during the 2013-2014 and 2014-2015 school years. In HackHealth, a semi-structured after-school program, participants conducted online research into personally relevant health topics. Serving as a student researcher on this study, I observed that while many of the youth recognized the dot gov URL suffix as credible (several citing teachers' lessons on the subject), many of the participants did not understand what dot gov (or government) meant. For example, one participant explained that he trusted dot gov sites “Because ...it's the government... who's giving you...some facts that can help you out and you know you can trust him

because he's well-known and he does serious work" (Subramaniam et al., 2015b, p. 563).

Other students preferred to use other websites for various reasons (e.g. aesthetics, position in the Google search result list). A surprising number of students also mentioned distrust in government as a reason not to use government websites. While these observations were recorded and incorporated into other research analyses (e.g. Subramaniam et al., 2015b), there seemed to be an opportunity to dig deeper into all of these occurrences and investigate the understudied phenomena of youth and e-government.

## PROBLEM STATEMENT

Although e-government and youth information-seeking behavior are both robust areas of research, to date there have been few, if any, published studies examining the perceptions that young people have of government websites. Existing studies discuss the educative value of government websites for instruction (Bisland, 2009), list existing government websites for youth (Wilke & Keith, 2004), or describe how youth can act as co-designers with government agencies in designing these sites (Harrison, Zappen, & Adali, 2005; National Park Service, n.d.). Despite the fact that some youth seem to connect dot gov websites with credible information (Subramaniam et al., 2015b), it is unclear whether this is the case for all, or even most youth, or the reasons young people have for trusting these websites. There is almost no research available on youth preferences for these sites.

Furthermore, several recent studies cite the generational phenomena of young people's general distrust of institutions (Institute of Politics, 2015; Levitsky, 2014). From the findings of these studies, as well as anecdotal accounts from young people in the HackHealth 2013-2014 program, it seems there is the potential for this distrust to begin to affect the way that young people use information provided by these institutions. This study seeks to add to prior research on source credibility by exploring possible connections between perceptions and trust of government and perceptions and trust of e-government and by identifying possible effects that distrust may have on young people's use of and access to government information.

## OBJECTIVES AND RESEARCH QUESTIONS

At the outset of the study, there were two main goals identified: 1) To develop an understanding of the perceptions these young people have of government and e-government and 2) To observe connections between perceptions of government and perceptions of e-government. The following two questions guided both the design of the study and the analysis of the data:

1. What are HackHealth participants' perceptions of government?
2. What are HackHealth participants' perceptions of e-government?

## SCOPE OF THE STUDY

The data for this dissertation were collected during sessions of the second year of HackHealth (2014-2015), the aforementioned after-school program designed "to increase the interest of young people from disadvantaged backgrounds in the health

sciences and to improve their ability to look for and evaluate health-related information, their health-related literacy and self-efficacy, and their ultimate health outcomes” (Subramaniam et al., 2014). Not only was this an accessible population in terms of IRB-approval, location, and school permission, these youth were self-selected as interested in research and thus were amenable to participating in the data collection needed for this study.

Thirty-seven youth from four middle-schools in a mid-Atlantic (U.S.) school district participated in the program’s second year, which was run by the HackHealth researchers from the University of Maryland and school librarians at these schools. The program was held weekly for 10-12 weeks at each school within the months of December 2014-May 2015. Table 1.1 shows additional data on each school’s population and demographics.

*Table 1.1: Demographics of Participants’ Schools*

<b>School</b>	<b>Number of Students</b>	<b>Race/Ethnicity</b>	<b>% of Limited English Proficient Program Participants</b>	<b>FARMS (Free &amp; Reduced- Priced Meals)</b>
School AA (Grades Pre-K-8)	1004	9% Asian 23% Black/African Amer. 55% Hispanic/Latino 10% White 2% Two+ races	10%	64%
School BB (Grades Pre-K-8)	502	5% Asian 75% Black/African Amer. 6% Hispanic/Latino 10% White 3% Two+ races	N/A	25%
School CC (Grades 6-8)	1017	3% Asian 44% Black/African Amer. 50% Hispanic/Latino 2% White	21%	81%

School DD (Grades 6-8)	953	3% Asian 29% Black/African Amer. 65% Hispanic/Latino 2% White	32%	90%
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## STUDY METHODOLOGY

As a graduate research associate on the main HackHealth study, I served as a facilitator to the students. Simultaneously, I collected data as the sole author of this dissertation, an exploratory case study carried out within the context of the HackHealth after-school program. I used data collected from a variety of instruments, including five tools used in the HackHealth program generally - a survey, semi-structured interviews, a health literacy assessment tool, a credibility screenshot activity, and a card-sorting exercise. For the survey and the interview protocol, questions specific to this dissertation were added. From the health literacy assessment tool and credibility screenshot activity, only particular elements of the data that were relevant to this dissertation were used. Data were also drawn from a government and e-government word association activity, as well as over 60 hours of participant observation and audio-recorded sessions. The data from this case study were explored using content analysis techniques to gain an understanding of these participants' perceptions of government and e-government.

## SIGNIFICANCE OF THE STUDY

The main contribution of this study is to the research areas of youth information behavior and e-government. While several researchers have explored the way that young people search for and select online resources, fewer studies examine the ways

that personal beliefs affect these searches. To my knowledge, none explore the way that young people's political and civic beliefs affect perceptions of government-created or sponsored websites. Studies of e-government have explored the ways that trust in government and trust in e-government may be connected (Chee-Week, Bensabat, & Cenfetelli, 2008; Smith, 2010; Tolbert & Mossberger, 2006; Welsh, Hinnant, & Jae Moon, 2005; West, 2004), but none have examined this phenomenon in the context of young people. This dissertation adds another layer to what we know of youth information-seeking behavior. It also gives insight into young people's perception of e-government.

In addition, this study carries practical implications. With a better understanding of the connection between knowledge, belief, and actions regarding government websites, educators can better tailor their lessons on credibility. The use of dot gov as a shorthand to credibility may have a negative impact on the efficacy of the overall credibility lesson if youth have negative perceptions of e-government or government in general. Civic education accompanying the use of dot gov resources may be necessary as well. Also, by seeing the barriers that youth face to accessing this information, government agencies can review ways to better meet young people's perceptions of relevance and usefulness, accommodate various barriers to access, and appeal to young people who lack trust in government institutions. These are important considerations for all audiences, but particularly for youth, as a lack of trust, usability or belief in relevance could negatively affect future information behavior related to the use of e-government.

## RATIONALE FOR STUDYING YOUTH

The use of government websites is replacing in-person or analog applications for a variety of government services, including school enrollment, social service applications, and requirements for visas (Bertot, McClure, & Jaeger, 2008; Gibson, Bertot, & McClure, 2009; Holt & Holt, 2010). While many of these uses are primarily the focus of adults, youth increasingly act as intermediaries for their parents (Becker, Crandall, Fisher, Kinney, Landry, & Rocha, 2010). Youth are also expected to navigate such college-related documents as the Free Application for Federal Student Aid (FAFSA) and other federal student loan applications, all online. Discovering what young people perceive online government information to be may help us understand the education needed to enable future use of these resources.

Additionally, studying younger adolescents is important because they are on the cusp of Piaget's concrete operational and formal operational stages. As they cross over these stages, they begin to think beyond specific concepts, experiences, or artifacts and instead begin to process abstractly (Piaget & Inhelder, 1969). By examining the ways in which this age group perceive government and e-government, and the connections they make between the two, we gain insight into how these thoughts may develop as they become older, more active members of civic life.

Finally, many of the themes that arise during discussions of government and online government information with youth are directly relevant to the social studies standards in their school curriculum. Objectives such as having students examine the effect of media on political life, analyzing texts for biases and point of view, and

thinking about the need for government protection during threats to national security all factor into their perceptions of government and government information. Table 1.2 provides an overview of some of the key state standards by grade.<sup>1</sup>

*Table 1.2: Relevant Curriculum Standards and Objectives by Grade*

<b>Content Standard</b>	<b>Fifth Grade</b>	<b>Sixth Grade</b>	<b>Seventh Grade</b>	<b>Eighth Grade</b>
1.0 Content Standard: Political Science - Students will understand the historical development and current status of the fundamental concepts and processes of authority, power, and influence, with particular emphasis on the democratic skills and attitudes necessary to become responsible citizens.	B2a. Analyze the usefulness of various sources of information used to make political decisions		B1b. Evaluate ways citizens use, monitor and influence the formation and implementation of public policy  B1d. Analyze the role of media and public opinion in shaping government policy and action	B1a. Analyze the influence of the media on political life  B1b. Evaluate ways the citizens should use, monitor and influence the formation and implementation of public policy
	C1. Describe individual rights and responsibilities in the United States			C1. Examine the impact of governmental decisions on individual rights and responsibilities in the United States
	C2b. Analyze how government needs to provide more protection and order during times			

<sup>1</sup> These are copied directly, though reformatted, from the Maryland State Curriculum for Social Studies: [http://mdk12.msde.maryland.gov/share/vsc/vsc\\_social\\_studies\\_gr38.pdf](http://mdk12.msde.maryland.gov/share/vsc/vsc_social_studies_gr38.pdf)



	of crisis, such as the natural disasters and threats to national security			
6.0 Content Standard – Social Studies Skills and Processes- Students shall use reading, writing, and thinking processes and skills to gain knowledge and understanding of political, historical, and current events using chronological and spatial thinking, economic reasoning, and historical interpretation, by framing and evaluating questions from primary and secondary sources.	Identify the characteristics of informational texts, such as print features, graphic aids, informational aids, organizational aids, and online features			
	Use strategies to demonstrate understanding of the text (after reading)			
	<ul style="list-style-type: none"> <li>a. Identify and explain what is directly stated in the text</li> <li>b. Identify, paraphrase, or summarize the main idea of the text</li> <li>c. Determine and explain the author’s purpose</li> <li>d. Distinguish between facts and opinions</li> <li>e. Explain whether or not the author’s opinion is presented fairly</li> <li>f. Explain what is not directly stated in the text by drawing inferences</li> <li>g. Confirm or refute predictions made about the text to form new ideas</li> <li>h. Connect the text to prior knowledge or personal experiences</li> <li>i. Draw conclusions and make generalizations based on the text, multiple texts, and/or prior knowledge</li> </ul>			
	D1a. Gather and read appropriate print sources, such as textbooks, government documents, timelines, trade books, and web sites	D1a. Gather and read appropriate print sources, such as journals, periodicals, government documents, timelines, databases, reference works, and web sites		
F. Analyze Social Studies Information	F. Analyze Social Studies Information			
1c. Analyze a document to	1c. Analyze a document to determine point of view 1e. Identify bias and prejudice			

	determine point of view 1d. Analyze the perspective of the author 1e. Identify the bias and prejudice	2b. Compare information to prior knowledge 2c. Determine the reliability of the document 2d. Compare ideas, models, systems, and perspectives  3b. Reconstruct the arguments of issues or events 3c. Assess the costs and benefits of alternatives 3e. Verify or change prior understandings based on new information
	G1b. Engage in civic participation and public discourse  3. Use current events/issues to answer questions	

## EXPLANATION OF KEY CONCEPTS AND TERMS

### INFORMATION

To define information, I borrow from Eliza Dresang (2005): “In this study, ‘Information’ refers to the ideas or thoughts that individuals contribute, seek, or obtain from informal or formal discussion, investigation, or study” (p. 179).

### E-GOVERNMENT

E-government is a broad concept encompassing the web-based technology used by governments to improve communication and services for citizens, government employees, and those working with governments (Davies, 2002; Hernon, Reylea, Dugan, & Cheverie, 2002; see Yildiz, 2004 for a comprehensive review). This dissertation uses the term more narrowly, focusing on government websites, specifically websites with a dot gov URL that are produced by (or at the behest of) the United States federal government. The terms online government information,

government websites, dot gov websites, and e-government are used interchangeably throughout.

#### GOVERNMENT

In political science literature, the concept of government is often separated into the idea of specific government (an individual, a party, a specific Congress) and the institution of government (timeless in the sense that it refers to a concept instead of any specificity). In this study, I use both definitions. Instruments were designed for youth to tell the researcher how she or he defines government without suggestion of either idea. When the distinction is important to the findings and/or discussion, it will be made clear.

#### PERCEPTION

Perception is used as a way to describe the participants' definitions of government and e-government, as well as their feelings toward the institutions and dot gov URL. These feelings encompass perceived trust and usefulness, as well as prior beliefs on both government and e-government that participants bring to the study.

#### YOUTH

Although "youth" can certainly represent any number of age groups, this study uses the term to indicate the age of the participants in the after-school program during which the data were collected. These participants ranged in ages from 10-14 years old. Participants will be referred to collectively as young adolescents, HackHealth participants, youth, or simply participants.

## STRUCTURE OF DISSERTATION

This dissertation is presented in seven chapters. Following this introduction, chapter two discusses the literature related to information behavior, trust in and perception of government, and e-government, with a specific focus on young people when appropriate. Chapter three describes the methodology used in the data collection and analysis for this study, including a more detailed description of the study's participants. Chapters four and five examine the findings from the data in detail. Chapter four focuses on the data in aggregate, while chapter five focuses on five participants in detail. Chapter six discusses the key findings that emerged from the data and offers implications and recommendations to policy-makers and educators. Chapter seven concludes the dissertation with a summary of findings, limitations to the study, and suggestions for future research.

## **CHAPTER 2: REVIEW OF THE LITERATURE**

Although there is a distinct lack of research on young people's understanding and perceptions of e-government resources, there is a large body of work on youth information behavior, as well as research on young people's general feelings toward civic life and trust in social institutions. These two areas of research are summarized in this chapter. To give context to the discussion of youth-specific information behavior, this chapter begins with a review of several models and theories of information behavior consulted for and incorporated into the study. Following this, a discussion of the role of source credibility in Internet search is included. Additionally, research on the context of the e-government field of research is explored (specifically in how it influences youth use of government websites). The chapter culminates in a description of the conceptual framework used to guide this study, drawn from the models, theories, and prior research discussed.

### **MODELS AND THEORIES OF INFORMATION BEHAVIOR**

This section reviews several seminal models and theories of information behavior relevant to this study. The models and theories identified below have been chosen because they address at least one of the three following requirements: there is a focus on the user, there is a focus on the context of the search, and/or there is a focus on online information. Although many of these models focus on information-seeking behavior – the actions taken during the search process – and this dissertation focuses more on the underlying beliefs, situations, and attitudes that influence this behavior, the models discussed below describe the type of information search about which

participants were asked during data collection – active, purposive, and non-linear. An additional caveat is that many of these models and theories have been developed through research with adults; however, they have had enough impact on the field of information studies to tie back to studies on youth information behavior and overall have important implications on how this study frames the context of the search process.

#### UNDERSTANDING INFLUENCES ON INFORMATION BEHAVIOR

Ross Todd (2003) conceptualizes the field of information behavior as:

“people's information contexts, information needs, information seeking behaviors, patterns of information access, retrieval and dissemination, human information processing, and information use. Related concepts include sources, uncertainty, and satisfaction. Its theory building, research, and development are based on the belief that information is essential to the functioning and interaction of individuals, social groups, organizations, and societies, and to the ongoing improvement of the quality of life. Underpinning this is the belief that information has the potential to change what people already know and to shape their decisions and actions.” (p. 27)

This summary and the assumptions within this definition are informed by a variety of models and theories developed over the last few decades. Wilson's 1996 Model of Information Behavior illustrates the various intervening variables that may influence information-seeking behavior, including psychological, demographic, role-related or interpersonal, environmental, and source characteristics.

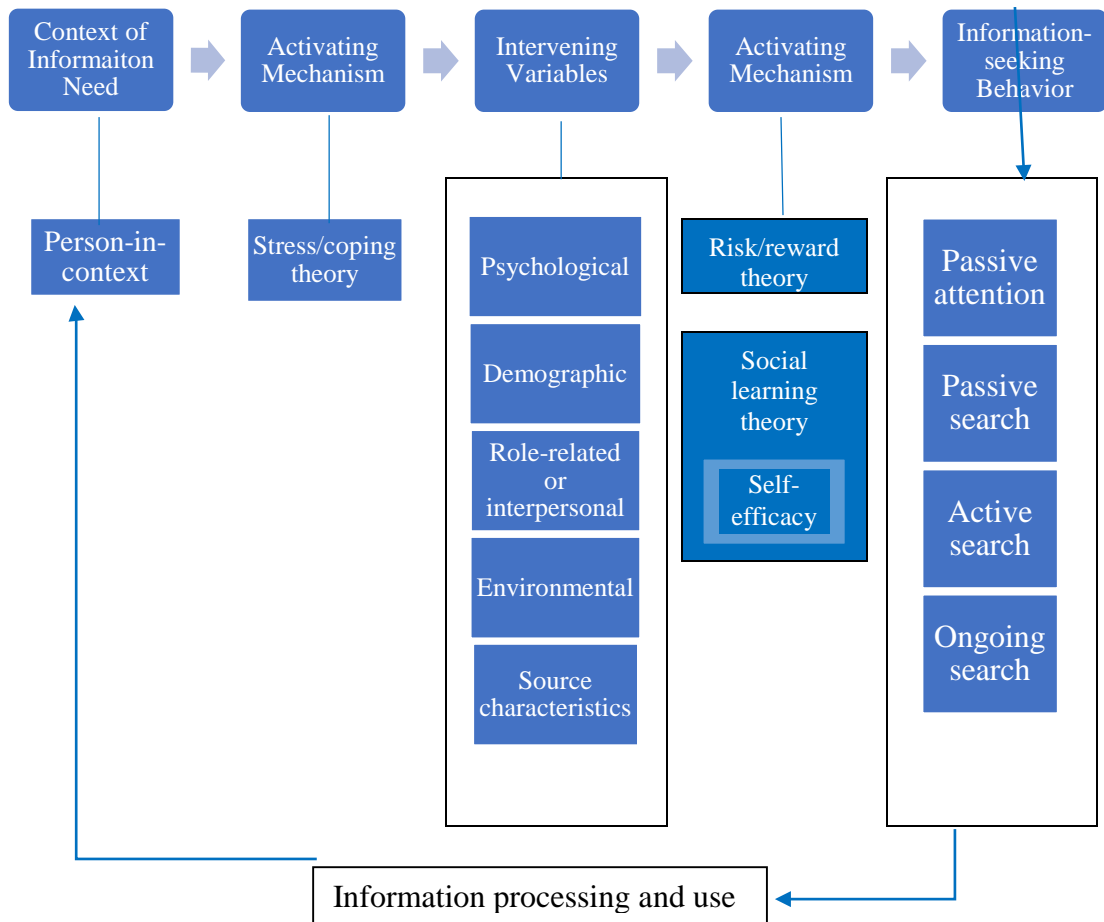


Figure 2.1: Wilson's 1996 Model of Information Behavior (Wilson, 1999, p. 257)

Other models further discuss contextualizing factors. Dervin's (1983) Sense-making Framework, for example, views all information as essentially a product of humans' observations, and thus subjective. This approach "posits information seeking and use not as 'Transmitting' activity...Rather, information seeking and use are posited as 'constructing' activities -- as personal creating of sense. It is assumed that all information is simply the sense made by individuals at specific moments in time-space" (Dervin, 1983, n.p.). This view of information behavior underlies many of the assumptions we make about the influences on information seeking; as people

construct the world around them, they view information sources and information artifacts differently.

Chatman's (1996) Theory of Information Poverty theorizes that an individual's environment shapes his or her view of information. In this theory, Chatman outlines six propositions about impoverished information small worlds (distinct within the larger population lifeworld), including: 1) the belief that the information poor perceive a lack of helpful sources, 2) class is related to information poverty in that the information rich withhold access to information, 3) self-protective norms are instituted as responses to social norms, 4) mistrust of information providers guides the self-protecting actions of secrecy and deception, 5) the belief of negative outcomes from sharing true problems, and finally 6) new knowledge is introduced as responses to everyday problems, but is only allowed in selectively. Again, this theory shows how the context of people's lives shapes their attitudes and perceptions of information. Chatman (1991) proposes that these small worlds create insiders and outsiders to the larger lifeworld of information in a society. As described, the outsiders may exist because of both imposed forces and self-guided choices, "for example... they may only access Web pages with information that agrees with their current point of view" (Jaeger & Thompson, 2005, p. 100). Important for this study, the norms of the small world can strongly shape members from young ages (Berger & Luckmann, 1967; Chatman, 1991; Jaeger & Thompson, 2005).

The Sense-making approach of conceiving information behavior has produced theories devoted to the situation or context of the environment in which it takes place. Everyday Life Information Seeking (ELIS), as conceived by Savolainen (1995), is



considered “nonwork” information seeking and is oriented around the way of life (general structure of one’s day), mastery of life (attitude toward life), and situational factors (e.g. lack of time) (see Figure 2.2).

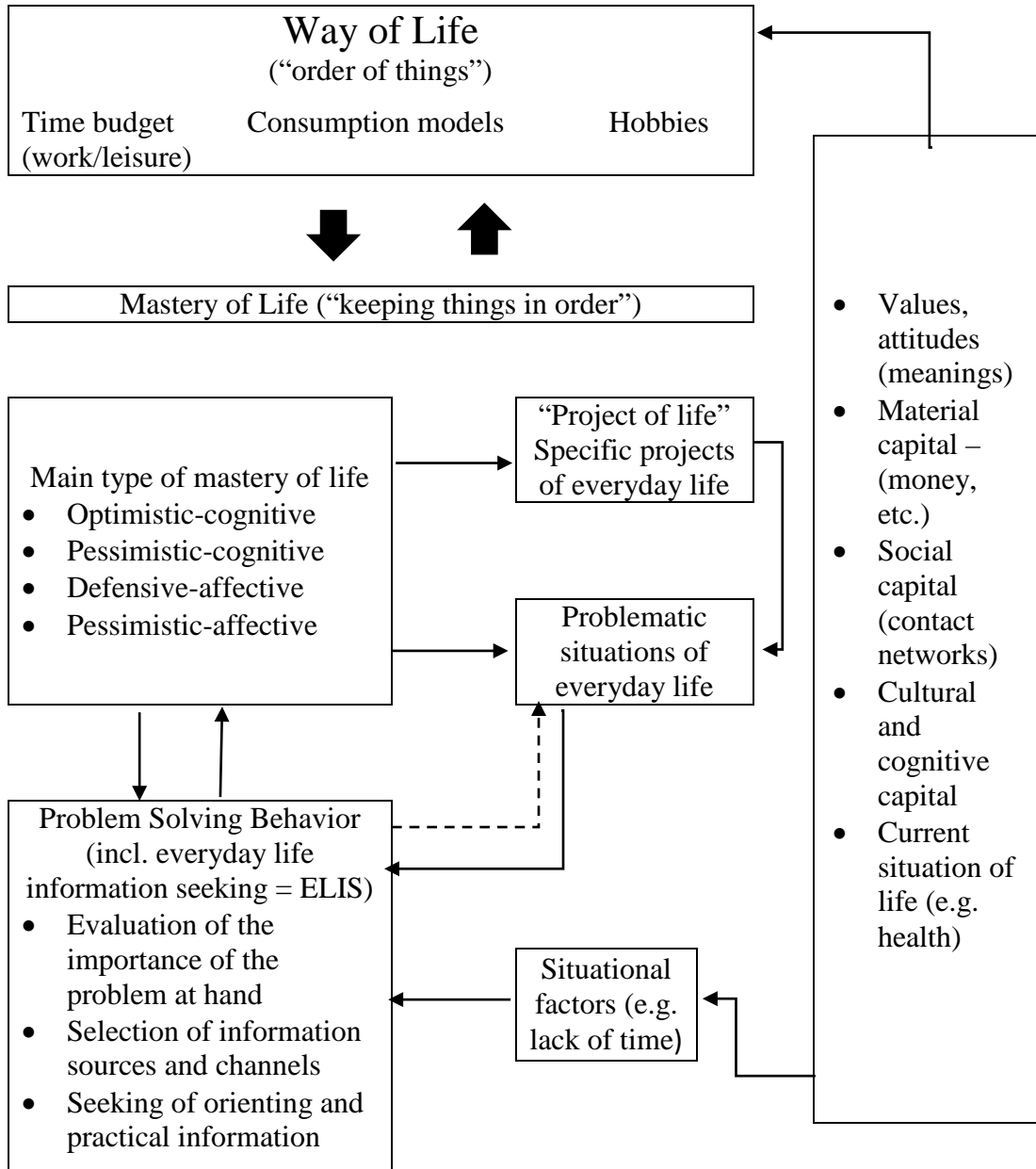


Figure 2.2: The Basic Components of the Study of ELIS in the Context of Way of Life (Savolainen, 1995, p. 268)

Based on empirical research, Savolainen (1995) emphasizes that the orientation one has toward problem-solving (or “mastery of life”) is essential to the understanding of the behavior; “Taken independently and without a proper consideration of the characteristics of cultural or cognitive ‘equipment’ of the information seeker being manifest in his or her way of life, situational factors offer a rather abstract picture of ELIS processes” (p. 290).

Imposed Query, a theory developed in 1995 by Gross, builds on the idea, present in library and information science research for decades, of information search as related to formal environments, such as work and school. Gross attempts to break down the imposed query, or the information search that takes place “not because [searchers] have identified an information need themselves, but because they have been set on that course by another,” into stages, beginning with the passage of the query from the imposer to the searcher and ending with the understanding of the imposer from the understanding presented by the searcher (p. 236).

Spink & Cole (2001) differentiate the two types of search by describing the environments and outcomes of the search:

In occupational or school information seeking, the user is seeking information in a controlled environment with a definite end product that has some sort of paradigmatic quality to it. ELIS, on the other hand, is fluid, depending on the motivation, education, and other characteristics of the multitude of ordinary people seeking information for a multitude of aspects of everyday life. (p. 301)

Regardless of the context, however, the searcher still brings his or her personal beliefs and prior knowledge to the search. The difference in motivation may result in a different choice of site (e.g. a blog for a personal health question versus a reputable health website for a school assignment), but a searcher still retains his or her biases and preferences. The ways that youth interact in these ways, specifically in the digital environment, are described in further detail below.

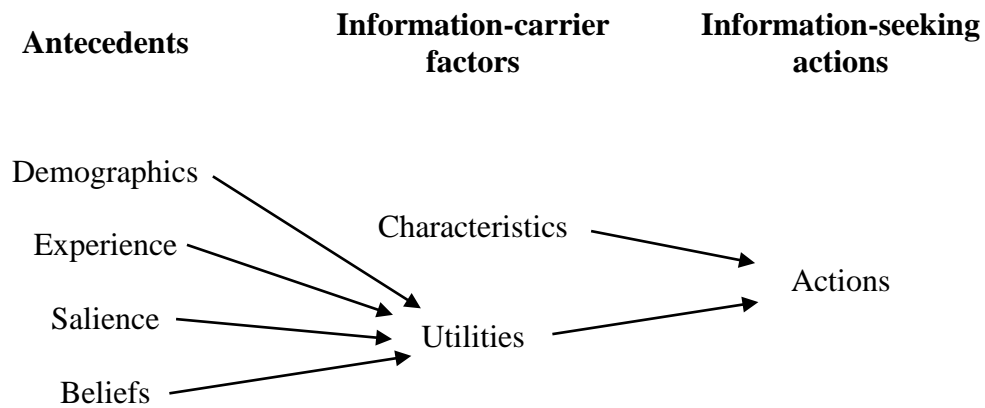
Other models, such as those found in Kuhlthau (1991) and Johnson, Andrews, & Allard (2001), further describe active search, incorporating detailed phases, functions, stages and attitudes. Kuhlthau's (1991) model of the information-seeking process focuses on the feelings, thoughts, and actions associated with each stage of, what she terms, the information search process (ISP). Derived from empirical studies with, originally, high school and college aged youth, Kuhlthau (1991) identified six stages of information seeking, each with associated feelings (affective realm), thoughts (cognitive realm), and actions (physical realm), all represented in Table 2.1.

*Table 2.1: The Information Search Process (ISP) (Kuhlthau, 1991, p. 367)*

Stages in ISP	Feelings Common to Each Stage	Thoughts Common to Each Stage	Actions Common to Each Stage	Appropriate Task According to Kuhlthau Model
1. Initiation	Uncertainty	General/ Vague	Seeking Background Information	Recognize
2. Selection	Optimism			Identify
3. Exploration	Confusion/ Frustration/ Doubt		Seeking Relevant Information	Investigate
4. Formulation	Clarity	Narrowed/ Clearer		Formulate
5. Collection	Sense of Direction/ Confidence	Increased Interest	Seeking Relevant or Focused Information	Gather
6. Presentation	Relief/ Satisfaction or Disappointment	Clearer or Focused		Complete

Johnson’s Comprehensive Model of Information Seeking (see Figure 2.3) is useful not only for the fact that it is focused on health information seeking, but also for the clarity of the way it shows how intervening factors affect the information-seeking process. Developed first in his study cancer-related everyday life information seeking, the model “focuses on the *antecedents* that explain why people become information seekers, the *information carriers* that shape the intention to seek information, and the information-seeking *actions* that determine the development of an individual's information field” (Johnson et al., 2001, p. 339.) The researchers describe the antecedents as “factors that determine an individual's natural predisposition to search for information from particular information carriers... demographics, personal experience, salience, and beliefs” (p. 339). The next phase involves information carriers, which are the different channels a person can use to

access information. Johnson et al. (2001) cite the work of Rice, McCreddie, & Chang (2001) and Archea (1977) on the concept of information fields, which he describes as “the resources, constraints, and carriers of information that define the sources that influence people during their information seeking” (p. 341). Finally, the model converges into actions, which are based on the factors above.



*Figure 2.3: Comprehensive Model of Information Seeking (Johnson et al., 2001, p. 340)*

Johnson, Case, Andrews, Allard, and Johnson (2006) further distinguish an information field from information pathways. Pathways are “the route[s] someone follows in the pursuit of answers to questions,” and include the more “dynamic and active” choices that individuals make when pursuing information through “channels, sources, and messages” (p. 572). Fields are more static, typically consisting both of communication networks and information devices. In this way, information fields are somewhat similar to Chatman’s (1991) small worlds; Johnson et al. (2006) describe individuals as being “embedded in a physical world that involves recurring contacts with an interpersonal network of friends and/or family. They are also regularly

exposed to the same mediated communication channels (company news bulletins, local newspapers, television news, and so on)” (p. 571).

#### THE ROLE OF WEB CREDIBILITY IN INFORMATION BEHAVIOR

The above models of information search discuss the various preceding and interceding factors that influence search, including, but not limited to, attitudes, motivations, beliefs, and knowledge. The sub-field of credibility research focuses largely on the factors that influence a searcher’s trust in a source. Rieh (2010) defines credibility as “an intuitive and complex concept,” but identifies trustworthiness and expertise as critical components. Trustworthiness is defined as “the perceived goodness and morality of the source...The perception that a source is fair, unbiased, and truthful,” while an evaluation of expertise “reflects perceived knowledge, skill and experience of the source” (pp. 1337-1338). Web credibility is differentiated from other sources because of the non-physical nature of the Internet, as well as the multi-layered nature of websites (e.g. finding an author may not be as easy as in traditional sources like books) (Flanagin and Metzger, 2008).

There are two general stages that individuals take when assessing a website’s credibility (Rieh, 2002). Predictive credibility judgments occur when the searcher is still on a search result page. The individual relies on credibility judgments to decide which page will meet his or her information need. After arriving on the page, the searcher evaluates the website. If the evaluative credibility judgment does not match what the predictive judgment projected it would be, the searcher most likely will return to the search result page and repeat the process until the two judgments are the same.

Source credibility, defined by Rieh and Belkin as an evaluation of “where a document comes from,” has several facets (1998). Rieh and Belkin (1998) separate these into two main categories, institutional and individual. The former includes such characteristics as the URL suffix and the type or name of institution behind the site (e.g. a college website or a website from Oxford University.) The individual level focuses on the author of the site, including whether the person’s contact information was available, the author’s credentials, and the familiarity of the author to the searcher.

Though source credibility is the primary focus of this study, other types of credibility influence searchers. These include message, media, presumed, reputed, surface, and experienced credibility. Message credibility focuses on the content of the information presented; media credibility is based on the platform of the message (e.g. TV, web, newspaper, etc.), presumed credibility is based on a person’s preexisting beliefs; reputed credibility is influenced by endorsements or referrals; surface credibility relies on the website’s aesthetics; and experienced credibility relies on a person’s experience with the source of the information (Rieh, 2010; Subramaniam, et al., 2015b). Other types of credibility that could be important include conferred and tabulated (Flanagin and Metzger, 2008; Rieh, 2010). Subramaniam and colleagues (2015b) summarize these additional types of credibility as, respectively, trust in the indirect source of the information and a reliance on aggregated ratings across multiple users.

Relatively few studies have been conducted specifically on young people’s online credibility assessment (Flanagin and Metzger, 2008; Rieh and Hilligoss, 2008).

Subramaniam et al. (2015b) found in a study with thirty youth aged 11-13 that the tweens used several types of credibility to judge websites, including message credibility through the identification of familiar words and language (i.e. Spanish); media credibility through the availability of video, audio, pictures and social media links; source credibility, by identifying sites with authoritative words like hospital and doctor; reputed credibility through teacher-recommended and celebrity-endorsed sites; and finally experienced credibility, when the youth had used the website or other information from the author before. Other studies of youth credibility preferences are covered more in the next section, situated within the larger context of youth online information-seeking behavior.

## YOUTH ONLINE INFORMATION-SEEKING BEHAVIOR

The sections above illustrate the different stages, constructs, and contexts surrounding information behavior. Except where noted, however, these models were created with information gathered from adults. Because the focus of this dissertation is e-government, and more directly, youths' perceptions and anticipated interactions with e-government, the following section will be limited to research that is focused on adolescent behavior with digital information. As indicated above, the focus will be on active information-seeking behavior, although other stages may be discussed as they relate to this stage.

To better frame the studies on this subject, the following subsection will first discuss findings on two phases of youth information seeking: interactions with the Internet search result page and decisions on when to end a search (i.e. which website



is chosen to use). After this, the various challenges youth may face in accessing digital information are reviewed.

#### INTERACTIONS WITH SEARCH RESULTS AND PREFERENCES FOR WEBSITES

After retrieving a list of websites from the search engine, youth exhibit several time-saving techniques in choosing which site to use, most notably that of “satisficing,” or choosing an adequate result as opposed to the best choice (Agosto, 2002a), as well as frequently choosing the first entry on the search result list (Druin, et al., 2009; Foss, et al., 2013). In their extensive review of the literature, Gasser, Cortesi, Malik, & Lee (2012) found that “according to multiple studies, the termination of the search process depends not only on the finding of satisfactory information, but also on factors such as motivation, boredom, time limit, and information overload” (p. 9). (This “stopping behavior” is described more extensively, though with adults, in Browne, Pitts, and Wetherbe, 2007).

Young people also tend to use the words in the titles of the results as clues (Hirsh, 1999; Subramaniam et al., 2015b), follow keywords without context (Madden, Ford, Miller, & Levy, 2006), and choose sites based on previous usage (Vanderschantz, Hinze, & Cunningham, 2014). Other studies find that youth engage in “fortuitous searching,” chaining their searches from link to link (Horst, Herr-Stephenson, & Robinson, 2010, p. 54 as cited in Gasser, Cortesi, Malik, & Lee, 2012). Vanderschantz, Hinze, and Cunningham (2014) more recently conducted a study with 9-11 year olds from which they modeled children’s computer search behavior. Through semi-structured interviews with these children, the authors identified that the 22 youth followed a four-part process in their searches. The first

part involved a Google search. The participants' choices of search results were based on five characteristics: 1) its ranking in the list (they chose the first result), 2) the description of the site, 3) the words in the title, 4) their knowledge of a site, or 5) the fact that it was Wikipedia.

Once students choose a site from the search result list, they use several methods of deciding whether it is appropriate for their use. Youth typically place emphasis on the aesthetics of sites (Agosto, 2002a, 2002b; Fergie et al., 2013; Fidel et al., 1999; Gasser et al., 2012; Sundar, 2008). They also tend to favor websites with a large amount of information (Agosto, 2002b; Hirsh, 1999), but shy away from predominantly text-based sites (Bilal, 2004; Kafai & Bates, 1997).

Research is mixed on whether youth display appropriate wariness in terms of the validity of web information sources. Studies from the early 2000s (Borzekowski & Rickert, 2001; Hanson et al., 2003) find that youth either do not consider credibility when using the Internet or think that it is largely reliable, but recent research (Fisher, Marcoux, Meyers, & Landry, 2007; Fergie et al., 2013) show that this may be changing. That said, the various preferences of youth for websites with graphics or great quantities of information do not necessarily suggest credibility is a major influence. Indeed in recent studies with middle-schoolers, researchers found that the youths struggled with making credibility judgments and frequently relied primarily on what they previously believed was true (St. Jean et al., 2015; Subramaniam et al., 2015b).

## CHALLENGES

The above focuses on youth information-seeking behavior and preferences. This section focuses on challenges the literature has identified that youth frequently have in accessing online information (that in some cases may explain the behavior above). In this study, access is defined using the tripartite access model (Burnett, Jaeger, & Thompson, 2008), in which physical, intellectual, and social access are all necessary to meet information needs.

### *PHYSICAL ACCESS*

Physical access, “generally viewed as access to the document or other form embodying information, be it conveyed through print, electronic, verbal, or another means of communication” (Thompson, Jaeger, Taylor, Subramaniam, & Bertot, 2014, p. 4), is a necessary prerequisite to answering an information need. Unfortunately, even in an age when young people are deemed “digital natives” (Prensky, 2001), some youth (particularly those from lower socio-economic backgrounds) lack regular access to Internet-enabled devices (Lenhart, 2012) and some may experience a lack of access to appropriate information sources (Lenhart, 2010). This is compounded by the reduction of public spaces, such as school and public libraries, for youth to access the necessary hardware to get online (American Library Association, 2014). Although many youth have smartphone devices (and indeed these are frequently their only form of Internet access) (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013), the way that information is perceived over a mobile phone is markedly different from that of a computer, in terms of screen and keyboard size as well as available data.

The lack of physical access has important implications for young people's digital literacy skills (Subramaniam et al., 2015b). Exposure to computers in everyday life is identified as an important aspect of information access (Subramaniam et al., 2015a) and health literacy (Kerka, 2003; Norman & Skinner, 2006a; Wilson, 2001) for a reason. Differing degrees of access may contribute to a participation gap, in which the types of interactions youth have with the Internet differ based on their access to computers (Hargittai & Hinnant, 2008; Jenkins, 2009).

#### *INTELLECTUAL ACCESS*

Intellectual access, “revolves around the ability to understand how to get to and, in particular, how to understand the information itself once it has been physically obtained” (Thompson et al., 2014, p. 5). Information literacy, defined by Eisenberg (2008) as “the set of skills and knowledge that allows us to find, evaluate, and use the information we need, as well as to filter out the information we don't need” (p. 39). Subramaniam et al. (2015a) have identified a collection of “literacy bits” necessary to successfully meet health information needs. Among the “bits” related to the search stage are: limiting “reliance on surface characteristics, such as the design of a Website, the language used, etc. (surface credibility),” reducing “search result selection based solely on word familiarity,” understanding “how search engines work (i.e., hits, order of search results, snippets, inclusion/placement of ads, etc.),” and using appropriate keywords and spelling in searches, among others.

Reading, writing, and comprehension are at the cornerstone of information literacy. The vast majority of health literacy definitions also include basic literacy

(reading and comprehension skills) as a necessary skill (AMA, 2014; AMA Ad hoc Committee on Health Literacy for the Council on Scientific Affairs, 1999; Baker, 2006; Bernhardt, Brownfield, & Parker, 2005; IOM, 2004; Kerka, 2003; Mancuso, 2008; NHES, 2013; Norman & Skinner, 2006; Nutbeam, 2008; Ormshaw, Paakkari, & Kannas, 2013; Schillenger, 2001; Skopelja, Whipple, & Richwine, 2008; Squiers, Peinado, Berkman, Boudewyns, & McCormack, 2012; Sørensen, Van den Broucke, Fullam, Doyle, Pelikan, Slonska, & Brand, 2012; von Wagner, Steptoe, Wolf, & Wardle, 2008; Wilson, 2001; Zarcadoolas, Pleasant, & Greer, 2005; see also Subramaniam et al., 2015a). Websites, particularly health and science websites, have been found to be written at higher reading levels than are appropriate for young adolescents (Large & Beheshti, 2000; Ng and Gunstone, 2002) and misspellings and generic word choices have been found to impede search (Bilal, 2001; Fidel, 1999; Hanson, Derry, Resnick, & Richardson, 2003).

The term “digital native,” meaning the generation of youth who have grown up among technology, is commonly used to demonstrate the expertise young people have with digital media. There is, however, a danger in assuming youth have intellectual skills that can successfully work with all kinds of technology. Studies have shown that youth are in fact not expert searchers (Centre for Information Behaviour and the Evaluation of Research [CIBER], 2008), and that their teachers frequently have more knowledge of certain kinds of technology uses than their students (Wang, Hsu, Campbell, Coster, & Longhurst, 2014). In fact, a variety of studies have found that youths’ search skills frequently impair their ability to meet their information needs (Gray et al., 2005; Skopelja, Whipple, & Richwine, 2008) As

Eastin (2008) puts it, “When it comes to ‘digital natives,’ nothing should be taken for granted – the digital environment is a complex, changing entity with which children of all ages struggle when searching for and evaluating information” (p. 43).

#### *SOCIAL ACCESS*

Social access “captures the idea that simply because one *can* physically and intellectually access needed information, it does not necessarily follow that one *does* access that information or that all readers, listeners, or touchers interpret the information in the same way” (Thompson et al., 2014, p. 6). This particular brand of access (and associated challenges) directly relates to the question of whether personal perceptions of various institutions affect a searcher’s decision from where and whether to access information. Although probably the least studied area of access, and even less studied with youth, Gasser et al. (2012) report studies that show demographics may affect youth search behavior, such as the topics for which to search. They cite the findings of Jackson et al. (2008), in which African American females were most likely to search for information on depression, mood, and mental illness and about health, diet, and fitness. Gender also was a factor in differing search behaviors. Culture is mentioned as a possible factor for the findings of Boyar, Levine, and Zensius (2011), in which female youth of color seek out sexual health information on the web because of the pressure of authority figures not to engage in sexual activities (Gasser, 2012, p. 52).

## YOUTH PERCEPTIONS OF GOVERNMENT

This study seeks young people's perceptions of government in order to gauge their overall feelings, attitudes and beliefs toward government, as well as their definition of government. Because this is an exploratory study, what the participants might consider when describing their perceptions was unknown. The following looks at two main areas of research:

1. Research explaining inputs that may influence young people's perceptions, including political socialization and, specifically, the influences of the media, major world events, and civic education on people's ideologies; and
2. Research on trust evaluations of government, including those of youth.

## YOUTH AND POLITICAL SOCIALIZATION

Scholars find that young people show signs of having a distinct political identity (Sapiro, 2004). Surveys of older youth (aged 18-29) show that these young people's political leanings directly affect their trust in political officials, for example. In terms of President Obama in 2014, 53% of Democrats, 23% of Independents, and only 13% of Republicans trusted the President to do the right thing all or most of the time (Institute of Politics, 2014). This of course says little about younger youth, but it does suggest that the adolescent years (and those before) include developing political beliefs and attitudes. These issues of socialization situate the issue of early perceptions of government institutions in a place of importance because they affect "a young person's developing identity for political participation, for a sense of civic

responsibility, and for a sense of political efficacy” (Torney-Purta, Barber, & Richardson, 2004, p. 16).

Much of the scholarship related to government and younger adolescents and children focuses on political socialization. Flanagan & Sherrod (1998) highlight the differences between early research on political socialization, in which young children, assumed to be passive, were the focus of study and authority figures were expected to be their biggest influences versus the research of later years, in which adolescents and young adults were believed to be more active participants in their political development. Recent research tends to unite the two views with new knowledge of developmental patterns and plasticity of beliefs throughout life. Influences believed to have some effect on young people’s later political beliefs include parents, peers, the media, level of education, involvement in organized activities as youth, civic education, and major world events that occur during their formative years (Crystal & DeBell, 2002; Damico, Conway, and Damico, 2000; Flanagan & Sherrod, 1998; McLeod, 2000; Niemi & Junn; Twenge, Campbell, & Carter, 2014; Wray-Lake & Hart, 2012). Particularly salient to this study are the possible effects of the media and major world events on young people’s ideologies.

Adolescents spend a lot of time around media. A 2010 study by the Kaiser Family Foundation found that young people aged eight to 18 spend on average seven hours and 38 minutes per day using media; when multi-tasking is taken into account, exposure increases almost two hours. In other words, youth are exposed to 10 hours and 45 minutes of media per day (within seven and a half hours of use). The study notes particularly high rates of use amongst 11- to 14- year-olds and Black and



Hispanics; “Eleven- to fourteen-year-olds average just under nine hours of media use a day (8:40), and when multitasking is taken into account, pack in nearly 12 hours of media exposure (11:53)...Hispanic and Black youth average about 13 hours of media exposure daily (13:00 for Hispanics and 12:59 for Blacks), compared to just over 8½ hours (8:36) among Whites” (p. 5).

These numbers are compelling for many reasons, but particularly notable for this study is the relationship of media use and political socialization. Studies find that media has a profound impact on young people, particularly with regards to health behaviors like aggression and use of tobacco and alcohol (Brown & Bobkowski, 2011). Additionally, scholars note that both the choice of media type and the consumption of media affect young people’s general socialization; as Arnett (1995) explains “When they seek entertainment or high sensation from media, when they use media materials toward identity formation or for coping, when they participate in a media based youth subculture, adolescents are also in a larger sense, participating in activities that are part of their socialization” (p. 525). In adults, use of TV news has been connected to political polarization (Hmielowski, Beam, & Hutchens, 2015) and trust in government has been linked to the overall positivity or negativity of the press (Hetherington, 1998). Perhaps more notably, a number of studies have recently linked media use to higher levels of civic engagement (Bakker & de Vreese, 2011) and political knowledge (Pasek, Kenski, Romer, & Jamieson, 2006). Overall, the type, frequency, and attitudes of media influence young people’s socialization.

Political socialization also depends on the societal climate in which a person develops. In their study of the socialization effects of political campaigns, Sears and

Valentino (1997) assert that “most socializing communications, and the greatest socialization gains, are likely to be triggered by the intervention of exogenous political events” (p. 46). This carries with it the implication that while socialization may be related to a life stage, connections are based more on events that occur during a period of time in a generation’s youth than the general developmental characteristics that all generations possess, an example of which, the authors cite, are the trusting attitudes that children tended to have under Presidents Eisenhower and Kennedy compared to the less favorable attitudes developed under Presidents Johnson and Nixon (p. 46). Jennings, Stoker, and Bowers (1999) found that although parent-child transmission of political views are generally predictably strong, during periods of societal change, such as the 1960s, politicized households more frequently produced children who disagreed with parental views. While this data do not necessarily reflect the current state of society, they do suggest that when society goes through periods of change (such as after significant cultural events), normal political socialization processes can be altered.

#### TRUST IN GOVERNMENT

Scholarly literature on trust as it relates to civic institutions and government officials is an oft-studied concept in such fields as political science and political communication (see, for example, Levi & Stoker, 2000 for an extensive treatment on the subject). Despite this depth of research, studies on young people’s trust in government are rare. Thus, in the following discussion of conceptualizations of trust and distrust, most of the research has been on adults. At the conclusion of this section, the few studies that have looked at youth specifically will be highlighted.

The following components of trust, outlined by Levi & Stoker (2000) are implicit factors in the discussion about trust that occur in this study:

- “Trust is relational; it involves an individual making herself vulnerable to another individual, group, or institution that has the capacity to do her harm or to betray her.
- Trust is seldom unconditional; it is given to specific individuals or institutions over specific domains...
- Trust is a judgment that can be conceptualized dichotomously (one either trusts or distrusts) or in a more graded fashion (one trusts or distrusts to a degree)...
- Trust judgments are expected to inspire courses of action...
- The trust judgment reflects beliefs about the trustworthiness of the other person (or group or institution)” (p. 476).

This definition speaks to the impact that trust has on people’s lives and the power dynamic between a person giving trust and the institution or person to which the trust is given.

Trust in government specifically is a difficult concept to encapsulate, largely because of the vast array of definitions and conceptualizations that can be found in the literature. The following definitions of trust in government, however, are particularly relevant to this study. Cooke & Gronke (2005) describe trust as being defined as either a deeply engrained moral issue (Uslaner, 2002) or as more closely related to whims of current topics (Hardin, 2002). Thomas (1998) posits that trust in

government develops from personal expectations (associated with demographic characteristics), reciprocal agreements, and institutional standards or laws and regulations. He also conceives of three distinct types of trust – fiduciary (made up of unbalanced relations), mutual (promoted by interaction with the other person or body), and social (associated with established institutions) (p. 170). Trust is also differentiated by degrees, from low to high. In addition, Cooke and Gronke (2005) suggest another measure in which citizens actively distrust government. They suggest that a low degree of trust reflects skepticism, while actual distrust reflects cynicism.

Trust in government can also be conceived as trust in the system or regime (diffuse support) or trust in certain government officials (specific support) (Easton, 1965). A clear sign of the tension between these two conceptualizations are the results of the National Election Studies (NES) over the past few decades. The survey that makes up the NES contains questions designed to “tap the basic evaluative orientations towards the national government,” which became known as trust-in-government questions (Stokes, 1962, p. 64 in Levi & Stoker, 2000, p. 477). Levi and Stoker (2000) have summarized research on the studies done since the survey’s inception, and explain that “Evidence from all sorts of studies...found the NES responses to have strong partisan and incumbent-specific components...Trust judgments are also influenced by evaluations of the performance of the incumbent president or government, particularly in the economic realm; by evaluations of the leaders’ personal qualities; and by dissatisfaction with the policies being promoted or implemented by the current government” (p. 480). That said, they also note that declining trust since the 1970s has not been altered by changing parties in power or

major events, suggesting deeper roots of lagging trust. Regardless, they suggest that political ideologies have more effect on trust than personality or social characteristics.

Ultimately, trust in government is evaluated using many different metrics. Hetherington (1998) suggests that trust in government should be considered on multiple levels, including evaluations of specific institutions (e.g. Congress), of the President, of policies being considered, and of policy outcomes, as well as the types of information people get through the media and cultural change. Others use such metrics as the degree of ethics demonstrated by a government (OECD, 2000) and the degree of confidence one has in government's ability to get things done (i.e. performance) (Carter & Bélanger, 2005). Even with all of these considerations, however, at the root of each argument is the belief that a person's level of trust in institutions (or government, officials, people, etc.) has some effect on his or her behavior.

#### YOUTH TRUST IN GOVERNMENT

These different ways of defining, measuring, and applying trust have been generally developed with adults. However, Damico, Conway, and Damico's (2000) study found that the most important influence of adult trust was past trust. The results thus indicate that the context and experiences of early life and adolescence play a role in predicting later trust. This link is a reminder of the importance of social trust. As Kelly (2009) states "the very nature of social trust—trust in individuals and trust in government and social institutions—promotes the likelihood for individuals to actively engage in society through service, voting, and other forms of self-governance, such as political activism," citing such studies as Glaeser, Laibson,

Scheinkman, and Soutter (2000), Kwak et al. (2004), Newton (2001), Newton and Pippa (2000), and Torney-Purta, Richardson, and Barber (2004) as further proof.

Recently, there has been an influx of research on young people's declining trust in institutions, though the majority of this has been done with youth aged 18 and over. Levitsky (2014) writes of a speech by Amanda Lenhart, a researcher at Pew Research Center, at which Lenhart painted a picture of a generation wary of government, but accepting of corporations. She cites data from Pew to show that "nearly half of adults aged 18 to 29 think that it is a fair trade for corporations to gather their personal information in exchange for a free service," while "nearly 6 in 10...think that Snowden's revelations served the public interest," displaying a keen dislike of government secrecy." The Harvard Institute of Politics (2015) finds that nearly half of 18-29 year-olds polled do not have confidence that the justice system is fair and report continuing low levels of trust in government institutions, including the military, the Supreme Court, the President, the United Nations, the Federal Government, and Congress, though they do report that these levels are at least higher than the previous year's record lows (p. 8; 12).

## E-GOVERNMENT

### HISTORICAL GOALS

In its earliest inception, one of the key goals of e-government was to connect government to citizens directly (government-to-citizen or "G2C"), facilitating engagement and increasing access (P.L. 107-347). Several critiques of this optimistic vision soon emerged, however, including questions of usability and access (Belanger

& Carter, 2009; Bertot & Jaeger, 2006; Bertot, Jaeger, Langa, & McClure, 2006; Jaeger, 2006). Jaeger (2005) also suggests that e-government can be (and has been) used to further the agendas of those in power, for example, through biased web content or purposeful limitations to access. Indeed, he points out that the objectiveness of information on government sites that many people expect (Anderson, 2002) is in fact often a myth, with most information representing the beliefs of the party in power or the mission of the website's creator agency (see also Chadwick, 2001; Davis, 1999)

Issues of access, too, have been largely ignored by the federal government, with most either indirectly or directly sending citizens to intermediaries (like the public library) for help (Bertot, Jaeger, Langa, & McClure, 2006; Taylor, Gorham, Lincoln, Jaeger, Bertot, & Larson, 2014). In one early study, a searcher's level of education correlated with his or her belief that government websites were reliable (Welch & Hinnant, 2003). The study's authors posit that this could mean that more educated users can better differentiate reliable and unreliable sites, but it might also suggest that there are barriers to access for less educated users. Jaeger and Thompson (2004) also suggest that the information poor may be especially cut off from the benefits of e-government, whether it is because of lack of awareness, belief that it lacks relevance to their lives, lack of trust in e-government, and/or design decisions that impede access to those who lack basic or digital literacy or those who have physical or mental disabilities that prevent them from reaching the information.

That said, as of 2007, Rainie, Estabrook, & Witt found that over three-fourths (78%) of Internet users had visited government websites, with 38% searching official

government documents or statistics, 24% seeking information about health or safety problems from a government agency, and 22% looking or applying for government benefits (p. 6). They also found that 70% of Americans have an expectation of finding government agency information online (p. 6). Given that these data are nearly a decade old now, it is likely that expectations have only increased.

Even with the fledgling governmental presence on social media, however, issues like “privacy, security, accuracy and archiving” have hindered the growth of e-government (Bertot, Jaeger, & Hansen, 2012, p. 32). Indeed there still seems some truth to the early hypothesis that the one-way pattern of information dissemination without accompanying interactivity could actually reduce the connection between the government and its citizens (Bovens & Stavros, 2002). Of course, even the one-way dissemination can be threatened by external political events. During the government shut-down of Fall 2013, several agencies blacked out their websites as there were no employees available to monitor or update them (Shuler, Jaeger, & Bertot, 2014). In June 2015, the U.S. Office of Personnel Management was hacked, possibly by the Chinese government, leading to compromised personal data of anywhere from four point two million to 18 million current, former, and prospective government employees (Perez & Prokupecz, 2015). These issues lead to questions of reliability and emphasize e-government’s place in the turbulent national and international political landscape.

#### E-GOVERNMENT AND TRUST

For the most part scholarship connecting e-government and trust looks at how the trust of government influences use and not vice versa. For example, Carter and



Belanger (2005) found that when trustworthiness was conceived as trust of the Internet and trust of state government, there was a positive relationship between level of trust and intention to use a state e-government service (p. 18). Sharoni's 2012 study links social media use, online interactions with government, and online political activity with efficacy and trust.

Two studies that have looked at how the use of e-government affects attitude found that, while use of e-government may increase feelings of confidence in how well government is solving problems (West, 2004) and influence "perceptions of transparency of government, accessibility of government information, and increased responsiveness of the federal government" (Tolbert & Mossberger, 2006, p. 365), trust was not affected by use. Parent, Vandebeek, and Gemino (2005) posit that "internal political efficacy is indicative of the power a citizen feels they have over government after the election has taken place...this construct, more so than the overall perceived quality of the Web site, significantly influences and explains the citizen's overall trust in government, and ensuing belief that the government will be responsive" (p.731). Other studies have found that trust is increased when users find an e-government site high-quality (Chee-Week, Bensabat, & Cenfetelli, 2008) and when the outcome of the use of e-government is successful (Smith, 2010; Welsh, Hinnant, & Jae Moon, 2005).

#### YOUTH AND E-GOVERNMENT

As mentioned in the introduction, there is very little scholarly information on e-government for youth. Venturing into agency memoranda and policy decisions about e-government for youth yields slightly more information, but these data do not reveal

anything about youth opinions and interactions with government websites. Beginning with President Clinton's memorandum to agency officials in 1997, which called for the development of resources for children, youth have been at least acknowledged on government sites. Resources are most frequently directed either at teachers or developed for use in education. A working group formed by over thirty agencies soon after President Clinton's memo was sent began work on what would become the Federal Resources for Educational Excellence (FREE) website, which grants public access to federally supported education resources (Department of Education, 2001). The Department of Education also formed "Consortium for Education Teams," which brought together over 300 educators between 1998 and 2000 to form 10 teams representing five agencies intended to develop learning activities, lessons, and units (Department of Education, 2001).

In the following years, the government has unveiled "kids.gov," a portal for young people to discover various trustworthy websites on topics believed to be of interest to them. Agencies have also continued to develop resources for youth, though the degree to which they are successful in this depends largely on the budget and focus of the agency. Perhaps the most salient point of interest for this study is the recent announcement by the White House in its 5-year STEM (science, technology, engineering, and math) strategic plan of the consolidation of many agency STEM programs (Committee on STEM Education National Science and Technology Council, 2013). In this plan, the Committee calls for the Smithsonian "to work with NSF, ED, the other CoSTEM agencies...to harness their unique expertise and resources to disseminate relevant, evidence-based materials and curricula, **on-line**

**resources**, and delivery and dissemination mechanisms to reach more teachers and students both inside and outside the classroom” (n.p.) [*Emphasis mine*].

This was followed by the closure of the Office of Science Education in the National Institutes of Health (NIH) (the producer of the youth-focused website LifeWorks, an online compendium of health careers). The principal deputy director of the NIH, Lawrence Tabak defended the closure, saying “[K-12] education has never been part of [the agency’s] formal mandate...And frankly, it has never been a very high priority for NIH” (Mervis, 2013b). The website accompanying “Best Bones Forever,” a public health campaign run by the U.S. Department of Health and Human Services’s Office of Women’s Health was also recently put up for bidders to take over its trademark and the site (Prospective Grant of Exclusive Trademark, 2014). These moves seem to anticipate the White House’s proposed consolidation, which was followed by skepticism from members of Congress (Mervis, 2013a). What impact all of this has on the e-government presence of affected agencies remains to be seen, but considering one of the hardest hit agencies would be NASA, an agency with a robust web presence directed at youth, the landscape of STEM education-related e-government may change significantly.

## CONCEPTUAL FRAMEWORK

This amalgamation of research has led to the design of this dissertation, including the choice to focus on the contexts and antecedents of information behavior and questions specifically about attitudes and beliefs of searchers.

## INFLUENCE OF INFORMATION BEHAVIOR RESEARCH

Because of the context in which I am studying these participants (i.e. the HackHealth after-school program) and the questions asked in data instruments (see chapter three), active search is the focus of both this review and this dissertation. For example, participants are focusing on finding information on a specific topic throughout the program (thus their searches have purpose) and the questions asked are in the vein of, “if you were searching for health information,” which again describes an active process. It is also assumed that attitudes, contexts, and prior experience all interact to influence these actions and that youth construct the knowledge they find through their information search. The models discussed are also a mix of theories on ELIS and on work-related and imposed-query searches. Again, both have been used to understand the path to fulfilling information needs because of the hybrid design of this study. In addition, from prior studies conducted with youth, there are certain expectations one may have on how youth conduct searches, including satisficing, basing evaluations on website aesthetics and prior use, and demonstrating a tendency to choose the first site on the list of results. These behaviors also are influenced by several common barriers to access, including challenges related to a lack of experience with (and access to) computers, intellectual challenges, such as low levels of digital, information, basic, and health literacy, and social challenges, such as pre-existing opinions of authority and what makes a qualified source. Finally, prior research on credibility assessments of online information gives insight into what factors a participant might cite as reasons to use or not use a government website.

## INFLUENCE OF YOUTH, GOVERNMENT, AND E-GOVERNMENT RESEARCH

The studies on trust in government demonstrate that the concept of trust is multi-layered. Thus this study draws from the multiplicity of origins for trust discussed above (e.g. confidence in government institutions, whims of current events, and political efficacy, among others). When coding and analyzing the statements youth make about their own levels of trust, these various theories all will be considered.

The origins of e-government, particularly the goal to increase citizen engagement, are important underlying considerations of the need for youth to be able to access government websites. Barriers to access limit these outcomes. The discussion of youth-focused e-government demonstrates the varied levels of attention the federal government has given to youth as an audience, which may factor into recommendations made from the findings of this study. Finally, the connections between trust in government and e-government are, while tenuous, significant enough to give credence to the idea that youths' opinions of government may in fact affect their use of e-government (or vice versa).

## SUMMARY OF CONCEPTUAL FRAMEWORK

Drawing together the literature discussed above, this study is grounded in four propositions. Additional constructs that emerge during analysis will be incorporated into this framework.

1. Access is conceived as physical, intellectual and social (Burnett, Jaeger, & Thompson, 2008). Each of these levels can create barriers to information seeking and the fulfillment of information needs;

2. Demographics, experiences, and beliefs influence information-seeking behavior (Johnson, Andrews, & Allard, 2001);
3. An increase in confidence in the government after use of e-government has been demonstrated, though not with youth (Chee-Week, Bensabat, & Cenfetelli, 2008; Smith, 2010; Welsh, Hinnant, & Jae Moon, 2005). Thus, experiences with e-government may affect a user's perception of government; and
4. E-government is intended to promote democracy and access to government, thus any barriers to access should be identified and addressed.

Data collection instruments assume an information need and focus on hypothetical choices of using government websites to fulfill this need, as well as the chances of the information seeker finding the government website. Evaluations of both hypothetical and real government websites are both investigated. These choices and evaluations are based on a participant's age, experiences, and prior beliefs. Intellectual, physical, and social access also affect the choice and evaluation. These influences lead to perceptions of government and government websites, which themselves may be connected. Perceptions of government and government websites feed back into the information-seeking behavior. Figure 2.4 shows these propositions graphically within the context of this study.



# CONCEPTUAL FRAMEWORK

## Prospective Stages Studied

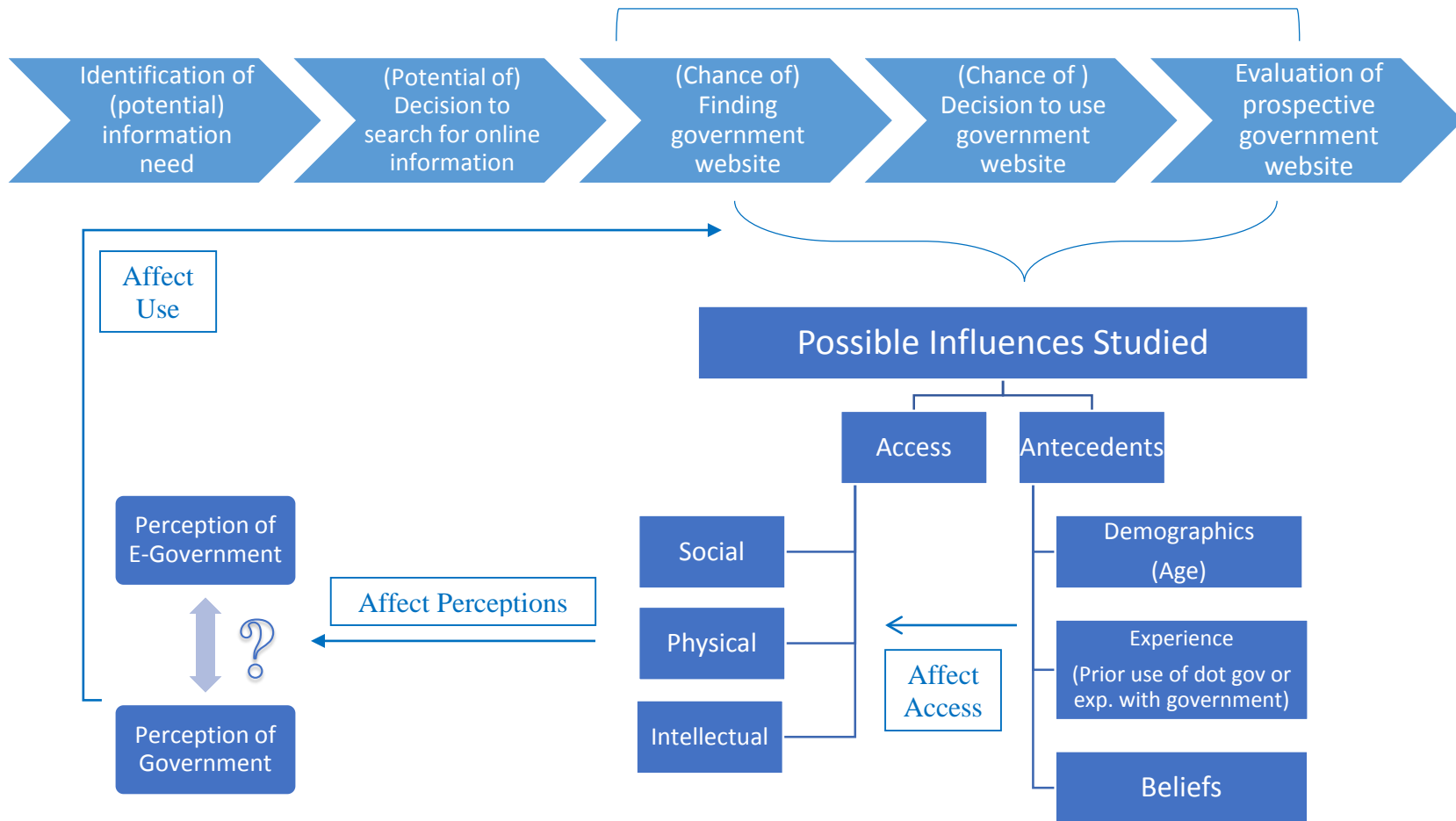


Figure 2.4 Conceptual Framework



## **CHAPTER 3: METHODOLOGY**

This chapter describes the methodology for the study, including the main problem and research questions, followed by a discussion of the methodological framework used. The qualitative paradigm and methodological traditions which grounded the study, as well as the researcher's role in the study are also discussed. Next, the research design used in the study is presented, including information on participant recruitment, participant demographics, data collection instruments, and the methods of data analysis. Following the discussion of the research design, means of verification and ethical considerations are described.

### **OVERVIEW**

#### **PROBLEM STATEMENT, OBJECTIVES, AND RESEARCH QUESTIONS**

Although e-government is a widely studied area, little research has been done on the way that young people understand and interact with digital government information. In addition, even in the robust field of information behavior, the possibility that young people's perceptions of institutions have an impact on their perceptions of information has been little explored. Thus, there were two main goals for this research: 1) To develop an understanding of the perceptions these young people have of government and e-government and 2) to observe connections between perceptions of government and perceptions of e-government. The following questions guided both the design of the study and the analysis of the data:

1. What are HackHealth participants' perceptions of government?

## 2. What are HackHealth participants' perceptions of e-government?

From these two questions, potential relationships and connections between the two perceptions could be examined.

These research questions were explored through a qualitative study of middle-school youth in four schools in a Maryland school district. Participants were attendees of the after-school program HackHealth, which met for an hour and a half to two hours, once-per-week, for 10-12 weeks at each school in Winter 2014 and Spring 2015. This dissertation represents research questions, data collection, and data analysis that were formulated distinctly from research already taking place in HackHealth, but the data gathered is situated within the context of this after-school program focused on health literacy.

### THE QUALITATIVE PARADIGM

This dissertation is grounded in the qualitative paradigm. Ontologically, reality is defined as subjective, which allows for multiple viewpoints of the participants. Ultimately, the purpose of the research is to understand how participants perceive government and government websites and the connections between these perceptions. The paradigmatic approach of this study is a mix of constructivism and pragmatism. Constructivism, a worldview in which “individuals seek understanding of the world in which they live and work,” leading the researcher to “make sense of...the meanings others have about the world” (Creswell, 2007, p. 20-21), follows from the information behavior theories chosen to guide this research (e.g. Sense-making). Ultimately, however, the various data collection instruments were chosen to best produce a productive outcome of the research, or, in other words, to focus on “the

actions, situations, and consequences of inquiry” (Creswell, 2007, p. 22). This pragmatist view supports the goals of the research, which are to understand the perceptions and levels of trust of government and e-government of a select group of young people, to explore whether there are relationships between these perceptions, and to contribute to both research and practice. The findings of the research inform both the development of e-government resources (both those targeted to youth and those designed for a wider audience) and how educators teach youth about the selection of trustworthy and useful resources.

This dissertation is an exploratory case study, distinguished as such by its intent to “investigat[e] a contemporary phenomenon in depth and within its real-life context” (Yin, 2009, p.18). Following methodological tradition, the study “relies on multiple sources of evidence, with data needing to converge in a triangulating fashion...[and] benefits from the prior development of theoretical propositions to guide data collection and analysis” (Yin, 2009, p. 18). It is bounded in time (10-12 weeks for each school), place (mid-Atlantic, U.S. middle school libraries participating in the HackHealth program), and participant group (youth participating in HackHealth at each school), all hallmark characteristics of case study methodology.

More specifically, this is an embedded case study that draws on theories of youth information behavior, political socialization, and trust in government. The study includes several units of analysis, including different tasks across students (see data collection tools below) and individual students studied across tasks.

Within this case study, the data collection instruments have been designed to produce multiple sources of evidence, including interviews and participant-

observation, among others. Yin (2009) describes the use of multiple sources of data as “a major strength of case study data collection” and notes this type of triangulation as essential to the case study methodology; “...the need to use multiple sources of evidence far exceeds that in other research methods” (pp. 114-115).

#### THE RESEARCHER’S ROLE

The researcher’s role in this study follows epistemological qualitative tradition in that the aim is to “minimize the distance” between the researcher and the participants (Creswell, 2007, p.18, citing Guba & Lincoln, 1988, p. 94). In the HackHealth after-school program, I studied participants, but I also served as an instructor, leading sessions of the program, designing lesson plans, and assisting students with their work. This of course means that the results of the study reflect my interpretations of events, as well as my relationship with each participant.

Additionally, several elements of the study were designed with the goal of eliciting information on participants’ perceptions of government to identify possible links to the use and perception of e-government (and vice versa). The assumption that these links may exist is based on prior work (Subramaniam et al., 2015b) and informal interactions with participants. That said, this pre-existing assumption could have potentially led to the identification of connections that do not actually exist, a possible limitation discussed further in chapter seven. Although data collection methods were designed to triangulate findings and validate analyses with other researchers, the axiological approach of this study also accepts these potential biases (Creswell, 2007). Indeed this approach assumes that all studies include a positioning

of oneself in results and analysis, and that no study can ever be free of value judgments.

## RESEARCH DESIGN

### PARTICIPANT RECRUITMENT

The HackHealth program in 2014-2015 was run in four middle schools. The choice of the participating schools for the 2014-2015 program year were based on one of two criteria: 1) that the school librarian was involved in the first HackHealth program year (2013-2014) or 2) that the school librarian was recommended by the school district's supervisor of library media services. Both sets of school librarians received a monetary honorarium for their service (\$1500 for the new librarians; \$3500 for returning librarians). Participants were recruited for the after-school program by the school librarian in their respective schools. The librarians distributed an informational flyer (designed by the HackHealth research team) to interested students and parents (see Appendix One). The students also received two consent forms – one for their own assent and one for their parents to review and sign. Both consent forms were collected at an introductory session of the program, during which researchers and/or the librarians explained the program in more detail and carried out preliminary data collection.

Any students attending the participating schools were eligible to participate, as long as they had their parent's permission and a ride home after the session. When possible, the after-school sessions were held on days that the school had an activity

bus to maximize participation. As a benefit for the participants' and their parents' participation, they were given \$50 at the conclusion of the program.

#### PARTICIPANT DEMOGRAPHICS

Participants in this study were the 37 middle-school-aged youth who signed up and attended the after-school program. The following tables show details of the study's population:

*Table 3.1: Number of Participants by Gender, Age, Race, Grade, and School*

<b>Participants by Gender</b>	Male: 14 (38%)	Female: 23 (62%)
<b>Participants by Race*</b>	Asian: 3 (9%) Black: 10 (31%) Hispanic/Latino: 11 (34%)	White: 1 (3%) Two+ Races: 4 (13%) Other: 3 (9%)
<b>Participants by Grade*</b>	5 <sup>th</sup> Grade: 3 (9%) 6 <sup>th</sup> Grade: 3 (9%)	7 <sup>th</sup> Grade: 15 (47%) 8 <sup>th</sup> Grade: 11 (34%)
<b>Participants by School</b>	School AA: 7 School BB: 7	School CC: 15 School DD: 8
*Five students did not fill out surveys, so self-described race and grades are unknown.		

*Table 3.2: Participant's Self-described Access to Technology and Internet Skill*

	Participant	School	How many computers at home can access the Internet?	Do you own a cell phone?	How good are you at using the Internet? <sup>2</sup>
1.	Jazzy Jay	BB	4+	Yes	Very Good
2.	Natsu Dragniel	BB	4+	Yes	Very Good
3.	Nunu	CC	4+	No	Pretty Good
4.	Katniss	CC	3	Yes	Very Good
5.	Kira	DD	3	Yes	Pretty Good
6.	Morgan Rice	DD	3	Yes	Very Good
7.	Ms. Sterious	CC	3	Yes	Very Good
8.	Sparten117	AA	3	No	Very Good
9.	Coffee Ice Cream	CC	2	Yes	Very Good

<sup>2</sup> Scale: Very Good, Pretty good, OK, Not very good, Not good at all

*Table 3.2: Participant's Self-described Access to Technology and Internet Skill (cont.)*

	Participant	School	How many computers at home can access the Internet?	Do you own a cell phone?	How good are you at using the Internet? <sup>3</sup>
10.	Gabriela	DD	2	Yes	Pretty Good
11.	Hopekeeper	CC	2	Yes	Very Good
12.	Jay the Greatest	CC	2	Yes	Pretty Good
13.	LilMarMar	BB	2	Yes	Very Good
14.	Waldo	AA	2	Yes	OK
15.	Agent Chicken Wing	CC	1	Yes	Very Good
16.	Ana Lynch	DD	1	No	Pretty Good
17.	Anonymys	BB	1	Yes	Pretty Good
18.	Batman	AA	1	Yes	Pretty Good
19.	Dr. Who	AA	1	Yes (broken)	Very Good
20.	Flash	DD	1	No	Pretty Good
21.	Jessica	DD	1	No	Pretty Good
22.	LolaRam	CC	1	Yes	Very Good
23.	Marie	CC	1	Yes	OK
24.	Percy Potter	AA	1	No	Pretty Good
25.	Queen Pam	CC	1	No	Very Good
26.	Soccer4Life	CC	1	Yes	Very Good
27.	Sweet Hershey Kiss	CC	1	Yes	Very Good
28.	The Blue Anime	CC	1	No	OK
29.	Unknown	AA	1	No	Very Good
30.	Cap'n Crunch	DD	0	No (lost)	Very Good
31.	Foxy 57	DD	0	Yes	Very Good
32.	Mr. Paste	CC	0	Yes	Very Good
33.	Chocolate Rain	CC	N/A	N/A	N/A
34.	Mr. Goldan Man	BB	N/A	N/A	N/A
35.	Nightwing	AA	N/A	N/A	N/A
36.	NinjaGirl	BB	N/A	N/A	N/A
37.	SuperSweet	BB	N/A	N/A	N/A

<sup>3</sup> Scale: Very Good, Pretty good, OK, Not very good, Not good at all

## PARTICIPANTS' CIVIC ATTITUDES

To provide context for their perceptions of government, three questions in the survey (described later in this chapter) were designed to measure participants' beliefs in the general fairness and equality of life in America, as well as their trust of people in general. Table 3.3 shows both these questions and the number of participants who disagreed, agreed, or felt uncertain about the question. The overall average for each answer is displayed in the bottom row.

*Table 3.3: Survey Questions on Social Issues: Number of Participants*

	<b>Basically, people get fair treatment in America, no matter who they are.<sup>4</sup></b>	<b>In America you have an equal chance no matter where you come from or what race you are.</b>	<b>Most people can be trusted.</b>
Strongly Disagree	3	3	9
Disagree	10	5	7
Uncertain	10	13	9
Agree	7	6	5
Strongly Agree	2	5	2
<b>Overall Average Answer</b>	<b>2.84</b>	<b>3.16</b>	<b>2.5</b>

Overall, the answer averages for the first two questions (people get fair treatment and people in America have an equal chance) fell around three – neither agree nor disagree. About half of respondents, however, did agree or disagree. Forty percent (13 out of 32) disagreed or strongly disagreed that people get fair treatment in America, no matter who they are. One-fourth disagreed or strongly disagreed that in America

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<sup>4</sup> Scale for questions: Strongly disagree (1), Disagree (2), Uncertain (3), Agree (4), Strongly Agree (5)



you have an equal chance no matter where you come from or what race you are. The third question was particularly resonant. The average answer was solidly disagree; overall, half of participants (16 out of 32) disagreed that most people can be trusted.

#### PARTICIPANT PSEUDONYMS

The pseudonyms used to protect the participants' privacy throughout this dissertation were chosen by the participants. Pseudonyms and initials are used interchangeably; a complete list of names and pseudonyms is included in Table 3.4. Additionally, throughout this document, the participant's school's letter designation (i.e. AA, BB, CC, and DD) will be included after the participant's name or initial along with a designation of the instrument from which the data mentioned was pulled (i.e.

*INITIALS-SCHOOL-DATA SOURCE*; e.g. ACW-CC-S).

*Table 3.4: Participants' Pseudonyms and Initials*

	<b>Participant</b>	<b>Initials</b>
1.	Agent Chicken Wing	ACW
2.	Ana Lynch	AL
3.	Anonymys	Anon
4.	Batman	Bat
5.	Cap'n Crunch	CC
6.	Chocolate Rain	CR
7.	Coffee Ice Cream	CIC
8.	Dr. Who	DW
9.	Flash	Fl
10	Foxy 57	F57
11	Gabriela	Gab
12	Hopekeeper	H
13	Jay the Greatest	JtG
14	Jazzy Jay	JJ
15	Jessica	Jess
16	Katniss	Kat
17	Kira	K
18	LilMarMar	LMM
19	LolaRam	LR
20	Marie	M

21	Morgan Rice	MR
22	Mr. Goldan Man	MGM
<i>Table 3.4: Participants' Pseudonyms and Initials (cont.)</i>		
	<b>Participant</b>	<b>Initials</b>
23	Mr. Paste	MP
24	Ms. Sterious	MS
25	Natsu Dragniel	ND
26	Nightwing	NW
27	NinjaGirl	NG
28	Nunu	Nu
29	Percy Potter	PP
30	Queen Pam	QP
31	Soccer4Life	S4L
32	Sparten117	S117
33	SuperSweet	SS
34	Sweet Hershey Kiss	SHK
35	The Blue Anime	TBA
36	Unknown	Un
37	Waldo	Wal

#### DATA COLLECTION

Data were collected in each of the four schools over the course of their respective 10-12-week programs. The informal learning environment of the after-school program contributed to the more authentic representation of the participants' selves, even though more formal instruction and data collection activities occurred. In Table 3.5 below, an overview of the data instruments used are listed. The mix of data collection instruments was critical to this study. In their discussion of their own study's mix of qualitative methods, Darbyshire, Macdougall, and Schiller (2005) note that their "use of multiple methods increased children's opportunity to choose and have at least partial control about how to contribute and what to say, and helped engage and interest them while demonstrating that [they] recognized them as active agents in the creation of their worlds" (p. 424). This approach to conducting research with children

has also been demonstrated in the information studies field, such as in the work of Meyers, Fisher, and Marcoux (2009), who used focus groups and interviews; Fisher, Bishop, Fawcett, and Magasse (2013), who used design-thinking, observation, and surveys; and Agosto (2002a), who used a mix of web searching sessions and group interviews.

Many of the data collection tools were part of the larger HackHealth research study, although certain questions and/or protocols in these tools were developed specifically for this study. The description column of Table 3.5 describes each tool generally; longer descriptions of all of the tools follow the table. Table 3.5 also includes the abbreviation of the instrument that will be used in the following chapters to show the origin of the quote or reference cited.

*Table 3.5 Summary of Data Collection Tools*

<b>Data Collection Tool</b>	<b>Approx. Time Spent</b>	<b>Description</b>	<b>Protocol/ Example</b>
Survey (S)	15 min./ participant	Sections used in this study asked about participant demographics, access to technology, and assessment of equity and fairness in America	Appendix Two
Health literacy assessment tool (HLAT)	20 min./ participant	Semi-objective tool that measured participants' knowledge of information, health, and digital literacies	Appendix Three
Interviews (I)	30 min./ participant	Open-ended questions on participants' search behavior and knowledge/perception of government and dot gov sites	Appendix Four
Card-sorting (CS)	30 minutes	Interactive activity in which participants chose which information sources they would use for hypothetical health information needs from a pre-	Appendix Five

		determined list of sources printed on individual cards	
<i>Table 3.5 Summary of Data Collection Tools (cont.)</i>			
<b>Data Collection Tool</b>	<b>Approx. Time Spent</b>	<b>Description</b>	<b>Protocol/ Example</b>
Word Associations (WA)	30 minutes	Exercise in which youth made lists of words they associate with government and government websites	N/A
Credibility Poster Screenshot (PS)	30-40 minutes	Exercise in which youth examined a poster-sized screenshot of the homepage of alzheimers.gov; youth placed sticky notes on areas of the site that suggested credibility to them (e.g. URL, etc) or suggested that the site could not be trusted (e.g. older date)	Appendix Six
Participant Observation <ul style="list-style-type: none"> <li>• Observation Notes (ON)</li> <li>• Weekly Audio Recording (WAR)</li> <li>• Research Team Obs. Notes (RTON)</li> </ul>	10-12 one hour sessions per school	Field notes and audio recordings of each session, which included observations of participants comments on government and e-government, as well as their user behavior generally	N/A

*SURVEY (S)*

The Survey (Appendix Two) focused on demographic information of the participants, as well as their access to information technology and their use of the Internet. In addition, for this study, several questions about trust in government were added to the existing questions used in the HackHealth program. These included open-ended questions, asking participants to define government and about their knowledge of

government websites and agencies, as well as questions on their general trust and belief in fairness and equality in America. Several of these questions were adapted from the study “Civic Measurement Models: Tapping Adolescents’ Civic Engagement” (Flanagin, Syvertsen, & Stout, 2007) and were informed by the conceptualization of trust in Cook & Gronke (2005), in which level of trust is distinct from lack of trust. Specifically, the latter affected the phrasing of the question “In general, elected officials (e.g., senators, members of city council, governor, president) cannot be trusted,” which was used instead of the phrasing “how much can you trust...?” These questions were designed to get a general idea of participants’ civic knowledge as it relates to e-government, as well as to get a snapshot of their belief in civic life, their own efficacy, and the government in general. Because only the data from the sections “Background Information,” “Trust in Government,” and “Your Opinion” were used in this study, these are the sections included in Appendix Two.

#### *HEALTH LITERACY ASSESSMENT TOOL (HLAT)*

The Health Literacy Assessment Tool (Appendix Three) was designed to be a semi-objective measure of the students’ health and information literacy skills. Consisting of 17 questions, the first version of the assessment was delivered at School CC.

Participants were asked to answer questions about the meaning of URLs, credibility judgments, and other information literacy skills through the use of a story. The participants were taken through the search process of a fictional young girl, Jasmine, and by answering the questions listed, they were “helping” Jasmine with her search.

After administering this first version of the tool, HackHealth researchers found that the number of questions needed to be reduced in order to keep the participants' attention. The second version of the tool was used at schools AA, BB, and DD, and asked similar, but fewer, questions. Because the use at School CC was used as a pilot, only data collected from the second version (used at schools AA, BB, and DD) were used in this dissertation. Additionally, only a selection of the questions was used as a source of data. These are listed below:

- Jasmine wants to know which three of these kinds of websites she can trust the most (circle 3): .com .org .gov .edu .net  
Explain to Jasmine why you chose these.
- She went to the website, but Jasmine isn't sure that she can trust the information there. How can she decide?
- Jasmine found two sites about type 1 diabetes, but they don't have the same information. How can she tell which one is right?
- What are three health websites you'd recommend to Jasmine?

#### *INTERVIEWS (I)*

Semi-structured interviews were conducted at each school with one to two participants at a time. Each researcher in attendance interviewed participants for approximately 15 minutes during a session early in the after-school program.<sup>5</sup>

Interview techniques were informed by guidelines for interviews with children

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<sup>5</sup> While post-interviews were administered for the HackHealth program, only data from pre-interview audio and transcripts were used in this dissertation.

(Bassett, Beagan, Ristovski-Slijepcevic, & Chapman, 2008; Tammivaara & Enright, 1986). The purpose of the interviews for this study was to probe participants about their strategies for search and to ask participants about their perceptions of government and government websites. A list of questions is included in Appendix Four. Interviews were audio-recorded by each HackHealth researcher and transcribed by an outside transcriber.

#### *CARD-SORTING (CS)*

At each of the schools, HackHealth researchers conducted a card-sorting activity with 2-4 participants at a time. The activity was designed to elicit the information sources that participants would prefer to use to search for health information. There were three decks – types of people, types of sources, and types of Internet sites – made up of several individual cards with a particular source printed on the front (e.g. in the people deck, one card had “teacher” printed on it). Going through one deck at a time, the HackHealth researcher would ask the participants which of the cards within the deck represented the sources they would turn to for health information and which they would not (e.g. they would ask a doctor, but not a librarian). The participants were further probed as to whether their preferences would depend on what type of question was being asked (e.g. personal, school assignment). HackHealth researchers also inquired as to whether there were any additional sources not included in the decks. This activity was intended to be an interactive way to understand youth preferences for health information sources. For this dissertation, the discussions that occurred during the third deck, types of Internet sources, were particularly useful, as

one of the cards offered the choice of government agency websites. The full protocol (with the list of sources included in each deck) is located in Appendix Five.

#### *WORD ASSOCIATIONS (WA)*

The word association activity was designed to capture participants' understanding of government and government websites. More specifically, youth were asked: "What does the term 'government' mean to you? In other words, what words do you associate with the term 'government'?" After completing their list for government, the same question was asked for dot gov websites. The group then discussed their answers.

#### *CREDIBILITY POSTER SCREENSHOT ACTIVITY (PS)*

The Credibility Poster Screenshot Activity (PS) was designed to better understand the sections of websites that young people use to assess credibility. The HackHealth research team identified a range of websites focused on a central theme (Alzheimers disease). A screenshot from the homepage of each site was captured and then printed on six different 24''x 36'' posters. The posters were laid out on tables or hung on the wall in the library at each school. Participants were given pink and green post-it notes to stick on the sections of the homepages they thought made the sites trustworthy (green post-its) or not trustworthy (pink post-its). They also wrote explanations for these assessments on the post-it notes and identified the notes with their pseudonyms.

For this study data were only analyzed from the participants' thoughts on the homepage of [www.alzheimers.gov](http://www.alzheimers.gov). Photos of the posters with the participants' annotations from schools AA, CC, and DD are included in Appendix Six. School BB



had a very informal discussion-oriented version of this activity due to low attendance on the day it was conducted.

*PARTICIPANT OBSERVATION (ON; WAR; RTON)*

Participant observation, as summarized by DeWalt and DeWalt (2011), typically involves: “Living in the context for an extended period of time...actively participating in a wide range of daily, routine, and extraordinary activities with people who are full participants in that context...Informally observing during leisure activities (hanging out); Recording observations in field notes (usually organized chronologically); [and] Using both tacit and explicit information in analysis and writing” (p. 5). These techniques were applied to my involvement as a facilitator in the program, with the obvious caveats that I was a participant with some form of power over the participants (see more in limitations below) and daily and routine activities outside of the after-school program were not observed.

Throughout the program, at each school, researchers kept field notes and wrote observation notes for each session. When quotes or data were used from other researchers’ notes in the data analysis, they are credited to the researcher in question. The abbreviation used in-text is RTON (research team observation notes). This practice of using multiple evaluators is described by Patton (2002) as “investigator triangulation,” and is one method this study used to corroborate observations.

In addition to these field and observation notes, each session was audio-recorded. Though I was at the majority of the sessions at the four schools, there were weeks that I did not attend due to travel or illness. Table 3.6 below shows the details

of the observations, including my attendance, the number of hours observed at each school, and whether audio was captured during the weeks I was not present. I listened to the audio from all sessions that were available and transcribed segments relevant to this study as part of the data analysis.

*Table 3.6: Observation Details*

<b>School</b>	<b>Weeks Researcher Present</b>	<b>Total number of hours<sup>6</sup> present/observed</b>	<b>Weeks Not Present (with audio)</b>	<b>Weeks Not Present (no audio)</b>
AA	Intro, Weeks 1, 2, 3, 5, 6, 7, 8, 9, 10, 11	16.5 hours	Week 4	N/A
BB	Intro, Weeks 1, 2, 5, 6, 7, 9, 10	12 hours	Week 3	Weeks 4 and 8
CC	Intro, Weeks 1, 2, 4, 5, 7, 9, 11	16 hours	Week 3	Weeks 6, 8, and 10
DD	Intro, Weeks 1, 2, 3, 5, 6, 8, and 9	16 hours	Weeks 4 and 7	N/A

#### PARTICIPANT ATTENDANCE AND COMPLETION OF INSTRUMENTS

Because the data collection for this study was undertaken during a voluntary after-school program, there was significant variance in the attendance of participants. Table 3.7 shows the number of sessions attended by each participant, as well as the data collection instruments they completed. Fortunately, the majority of data collection instruments for this study were administered during the first three weeks at each school, which were the weeks with the highest number of participants.

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<sup>6</sup> The weekly sessions at schools AA and BB were one and a half hours long, while the sessions at CC and DD were 2 hours long.

*Table 3.7: Participant Attendance and Instruments Completed (by school)*

	<b>Participant</b>	<b># of Sessions Attended<sup>7</sup></b>	<b>Survey (S)</b>	<b>Poster Screenshot (PS)</b>	<b>Word Assoc. (WA)</b>	<b>Card-Sort (CS)</b>	<b>Inter-view (I)</b>	<b>HLAT</b>
<b>School AA</b>								
1.	Batman	10	Y	Y	Y	Y	Y	
2.	Dr. Who	11	Y	Y	Y	Y	Y	Y
3.	Nightwing	9		Y	Y	Y		
4.	Percy Potter	10	Y	Y	Y		Y	
5.	Sparten117	9	Y	Y	Y		Y	
6.	Unknown	9	Y	Y	Y		Y	
7.	Waldo	11	Y	Y	Y	Y	Y	Y
<b>School BB</b>								
1.	Anonymys	7	Y	Y	Y	Y	Y	Y
2.	Jazzy Jay	7	Y	Y	Y	Y	Y	Y
3.	LilMarMar	8	Y	Y	Y	Y	Y	Y
4.	Mr. Golden Man	3			Y	Y		Y
5.	Natsu Dragniel	8	Y	Y	Y	Y	Y	Y
6.	NinjaGirl	1				Y		Y

<sup>7</sup> The number of weeks that sessions were held differed by school due to days that school was closed for snow. School AA had 11 sessions, School BB had 10 sessions, School CC had 12 sessions, and School DD had 10 sessions. Attendance data were unavailable for 2 weeks at School BB and School CC. These weeks have not been included in the total for any of the participants, so the counts for these participants may be off by two. These were also weeks that audio was not available and I was not present, so no data were captured for this study during these sessions.

7.	Super Sweet	4			Y			
School CC								
1.	Agent Chicken Wing	10	Y	Y	Y	Y	Y	Y
<i>Table 3.7: Participant Attendance and Instruments Completed (by school) (cont.)</i>								
	<b>Participant</b>	<b># of Sessions Attended<sup>8</sup></b>	<b>Survey (S)</b>	<b>Poster Screenshot (PS)</b>	<b>Word Assoc. (WA)</b>	<b>Card-Sort (CS)</b>	<b>Inter-view (I)</b>	<b>HLAT</b>
School CC (cont.)								
2.	Chocolate Rain	1					Y	
3.	Coffee Ice Cream	3	Y		Y	Y	Y	
4.	Hope-keeper	9	Y	Y	Y	Y	Y	Y
5.	Jay the Greatest	1	Y				Y	
6.	Katniss	10	Y	Y	Y	Y	Y	Y
7.	LolaRam	4	Y		Y	Y	Y	
8.	Marie	2	Y	Y	Y	Y	Y	Y
9.	Mr. Paste	6	Y	Y			Y	Y
10	Ms. Sterious	7	Y				Y	
11	Nunu	1	Y				Y	
12	Queen Pam	1	Y				Y	
13	Soccer4 Life	7	Y	Y	Y	Y	Y	Y

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<sup>8</sup> The number of weeks that sessions were held differed by school due to days that school was closed for snow. School AA had 11 sessions, School BB had 10 sessions, School CC had 12 sessions, and School DD had 10 sessions. Attendance data were unavailable for 2 weeks at School BB and School CC. These weeks have not been included in the total for any of the participants, so the counts for these participants may be off by two. These were also weeks that audio was not available and I was not present, so no data were captured for this study during these sessions.

14	Sweet Hershey Kiss	4	Y	Y	Y	Y	Y	Y
15	The Blue Anime	3	Y				Y	
School DD								
1.	Ana Lynch	10	Y	Y	Y	Y	Y	Y
<i>Table 3.7: Participant Attendance and Instruments Completed (by school) (cont.)</i>								
	<b>Participant</b>	<b># of Sessions Attended<sup>9</sup></b>	<b>Survey (S)</b>	<b>Poster Screenshot (PS)</b>	<b>Word Assoc. (WA)</b>	<b>Card-Sort (CS)</b>	<b>Inter-view (I)</b>	<b>HLAT</b>
School DD (cont.)								
2.	Cap'n Crunch	8	Y	Y	Y	Y	Y	Y
3.	Flash	8	Y	Y			Y	
4.	Foxy 57	7	Y	Y			Y	
5.	Gabriela	3	Y	Y			Y	
6.	Jessica	3	Y	Y			Y	
7.	Kira	8	Y	Y	Y	Y	Y	Y
8.	Morgan Rice	6	Y		Y	Y	Y	Y

## DATA ANALYSIS

Content analysis was used to study the collected data, with the assistance of the qualitative data analysis software program NVivo, as well as Excel. Qualitative content analysis is “a research method for the subjective interpretation of the content

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<sup>9</sup> The number of weeks that sessions were held differed by school due to days that school was closed for snow. School AA had 11 sessions, School BB had 10 sessions, School CC had 12 sessions, and School DD had 10 sessions. Attendance data were unavailable for 2 weeks at School BB and School CC. These weeks have not been included in the total for any of the participants, so the counts for these participants may be off by two. These were also weeks that audio was not available and I was not present, so no data were captured for this study during these sessions.

of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005).

Hsieh and Shannon (2005) identify three main types of content analysis: conventional, directed, and summative. In conventional content analysis, codes are defined using the data. In directed, codes are taken in vivo, but also from theory. In summative, keywords are counted to determine themes. This dissertation uses a combination of these strategies. Initially, the relevant text to this dissertation was separated from the data collected for the general HackHealth research study. Relevant text included references to government, e-government, and potentially influential “other” categories, such as data relating to digital literacy and physical access. This follows a strategy used in directed content analysis “to read the transcript and highlight all text that on first impression appears to represent” the goal of the study” (Hsieh & Shannon, 2005, p. 1281).

Using this collection of data, the first round of coding was a mix of in vivo and theory-based coding, or conventional and directed content analysis. For example, data associated with access were coded into the three types of access identified in the literature review (physical, intellectual and social), but common topics that came up in the data, such as security, were categorized in vivo. Summative analysis was also used; to check for prominent themes, the word frequency function in NVivo was used to identify common terms and phrases. From the preliminary codes, I created a second iteration of a codebook by grouping these into categories. With the second group, I coded interviews from schools DD and checked with a fellow researcher who had attended the after-school sessions at this school.

After these rounds of coding, I identified how the data fit into the research questions identified for the study. Data were coded as being about e-government or government. Statements were only coded as relating to government if they were directly related to government. For example, responses that dot gov sites are more accurate were only coded under the government code if the participant specifically stated that this is because they are government-produced. I also coded all data by participant at this point.

After coding the statements into the government and e-government groups, direct content analysis was applied. Because there is an extensive literature on the objects of and inputs on people's evaluations of trust when considering government, it made sense to start with these categories and then add to them only if the participants' opinions differed. Similarly, with the e-government set of data I used categories gathered from the literature, including findings on credibility and youth website preferences.

After focusing on the common reasons for evaluations, I used a process similar to that used with computers in sentiment analysis, an established analysis process that describes the identification of "positive and negative opinions, emotions, and evaluations" (Wilson, Wiebe, & Hoffman, 2005, p. 347). While my analysis was hand-coded, it still involved filtering out the neutral statements from the polarized (positive and negative) opinions, just as is done in sentiment analysis. This process was used to establish each participant's dominant attitude – did they generally view government positively or negatively – regardless of the source or reason for their evaluation. In other words, participants' perceptions were based on different metrics,

inputs, and sources, so this enabled a better understanding of how positive and negative statements and themes fit into the overall mood of the participants. Table 3.8 below shows examples of positive, negative, and statements deemed “non-polar” or neutral.

*Table 3.8: Examples of Positive, Negative, and Neutral Government Statements*

<b>Positive</b>	<b>Negative</b>	<b>Neutral</b>
<p>“I think the government, they stand up for your rights and the laws” (MR-DD-I).</p>	<p>“ACW said she saw on CNN that the government is planning something. She couldn’t remember what, but she said ‘I know it’s bad...’” (ACW-CC-ON)</p>	<p>Researcher: “So what does the FDC do?” CC: “I don’t know. I know what the CDC does. They usually stereotypical CDC in movies, they usually have hazmat suits.” (CC-DD-WA)</p>
<p>Researcher: “What are some other health things that the government does?” K: “Make sure our society doesn’t collapse” (Kira-DD-WA).</p>	<p>“Mean with Spanish people” (CIC-CC-WA)</p>	<p>Researcher: “What does the word government mean to you?” Wal: “It has something to do with the president.” (Wal-AA-I)</p>
<p>“Yes because they help us when we’re in need, like sometimes when we’re in war they would help us” (PP-AA-WA).</p>	<p>“When I say killers, I mean they’re not doing anything to help out around. There’s more homeless people, for every homeless person in the U.S., they have around 6 houses. If they were to actually help them...” (ND-BB-WA)</p>	<p>Researcher: “How do you feel about the government?” CIC: “I mean, I don’t, like sometimes I forget there’s a government or a president because you know I usually don’t talk about it at home.” (CIC-CC-I)</p>

Once participants’ statements were established as positive, negative, or neutral, the statements demonstrating polarity were counted. A participant with a total of seven positive statements and two negative statements, for example, would be designated as having an overall positive perception of government. There were a few



participants who either had too little to say about government to measure their perception (five participants) or had an equal number of statements each way (three participants). These participants are designated “neutral” (for those with equal numbers of statements) or “NED” (for those with not enough data). The same process was applied to the statements about e-government (four participants did not have enough data and one participant was neutral). Table 3.9 shows examples of positive, negative, and neutral statements about e-government.

<i>Table 3.9: Examples of Positive, Negative, and Neutral Statements about E-Government</i>		
<b>Positive</b>	<b>Negative</b>	<b>Neutral</b>
<p>“They’re useful. Why? Because they help you out in the information that you really want and that information that you really want will benefit you if you have a special assignment that you have to do and it would basically be a breeze, because you’re going to look on the internet and you’re already thinking, okay I already know what to do and this is going to be easy. I have the website that I’m going to link to the project and then the teacher will be impressed, like okay good” (Bat-AA-I).</p>	<p>“It’s dot government, so the government, I’ll assume made it, or had help with it, but it’s good, yet bad, because of YouTube. And the person on YouTube might not be an expert on Alzheimer’s or this could be a very old website and the information could be outdated” (Anon-BB-PS).  <i>[Note: Alzheimers.gov, the site he is evaluating, had a YouTube video on the homepage.]</i></p>	<p>“A government website is a website that government made and they put information there.” (Jess-DD-S)</p>
<p>“Dot gov is somewhere where the information is like, you feel comfortable with getting that information, because it’s not where somebody just puts their opinion, it’s pure facts” (H-CC-I).</p>	<p>“[Katniss] said the site had too much to read and that it should have something you can press to enlarge the type ‘because it’s a lot!’” (Kat-CC-RTON)</p>	<p>Researcher: “How did you find out about dot gov websites?”            Kat: “It was in my results in Google search.” (Kat-CC-I)</p>

“dot gov websites are more reliable than dot com, dot org” (UN-AA-PS).	Researcher: “Okay so what do you think of dot gov in general, not just the ones you've visited?” MP: It's confusing (MP-CC-I)	Researcher: “Okay, do you have any opinion about dot g-o-v websites?” Foxy57: “No.” (F57-DD-I)
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Because there was a large variance in number of sessions attended and data collection strategies completed, many of the participants had a larger data set from which to pull. For the purposes of the positive and negative “counts” it is only relevant in that some participants had more opportunity to give opinions. Table 3.10 shows the total number of positive, neutral, and negative statements for each participant. Because there were no clear patterns when comparing data from each school, the tables in the following pages and chapters will be organized alphabetically by participant.

*Table 3.10: Participants' Evaluation Frequencies: Positive, Negative, & Neutral*

	<b>Parti- cipant</b>	<b># of Positive State- ments (E-Gov)</b>	<b># of Neutral State- ments (E-Gov)</b>	<b># of Negative State- ments (E-Gov)</b>	<b># of Positive State- ments (Gov)</b>	<b># of Neutral State- ments (Gov)</b>	<b># of Negative State- ments (Gov)</b>
1.	Agent Chicken Wing	9	8	4	5	10	7
2.	Ana Lynch	6	3	0	6	5	0
3.	Anon- ymys	9	4	5	3	12	1
4.	Batman	3	8	1	3	12	3
5.	Cap'n Crunch	3	5	0	1	13	1
6.	Choco- late Rain	0	1	1	0	0	3
7.	Coffee Ice Cream	0	4	4	2	6	3
8.	Dr. Who	6	5	1	3	9	0

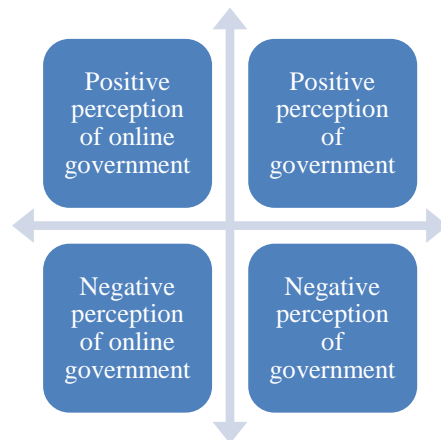
9.	Flash	1	2	0	3	0	3
10.	Foxy 57	0	2	0	3	4	0
11.	Gabriela	2	2	1	0	5	0
12.	Hope-keeper	8	2	0	6	4	0

*Table 3.10: Participants' Evaluation Frequencies: Positive, Negative, & Neutral (cont.)*

	<b>Participant</b>	<b># of Positive Statements (E-Gov)</b>	<b># of Neutral Statements (E-Gov)</b>	<b># of Negative Statements (E-Gov)</b>	<b># of Positive Statements (Gov)</b>	<b># of Neutral Statements (Gov)</b>	<b># of Negative Statements (Gov)</b>
13.	Jay the Greatest	2	2	0	0	5	1
14.	Jazzy Jay	1	4	4	0	10	13
15.	Jessica	0	1	1	0	6	0
16.	Katniss	6	11	3	0	11	0
17.	Kira	3	6	1	3	6	1
18.	LilMar Mar	6	3	1	1	5	0
19.	Lola Ram	9	7	0	2	8	1
20.	Marie	4	7	3	0	12	2
21.	Morgan Rice	3	4	0	7	6	0
22.	Mr. Golden Man	2	1	0	0	4	0
23.	Mr. Paste	2	1	2	0	1	6
24.	Ms. Sterious	0	5	1	1	3	2
25.	Natsu Dragniel	4	5	2	0	10	8
26.	Night-wing	4	4	1	1	8	1
27.	Ninja Girl	2	0	1	0	0	1
28.	Nunu	0	1	0	0	3	1
29.	Percy Potter	6	8	1	9	13	1
30.	Queen Pam	2	3	0	0	4	2

31.	Soccer4 Life	2	5	1	3	0	5
32.	Sparten- 117	4	6	0	2	12	3
<i>Table 3.10: Participants' Evaluation Frequencies: Positive, Negative, &amp; Neutral (cont.)</i>							
	<b>Parti- cipant</b>	<b># of Positive State- ments (E-Gov)</b>	<b># of Neutral State- ments (E-Gov)</b>	<b># of Negative State- ments (E-Gov)</b>	<b># of Positive State- ments (Gov)</b>	<b># of Neutral State- ments (Gov)</b>	<b># of Negative State- ments (Gov)</b>
33.	Super Sweet	0	4	0	0	7	0
34.	Sweet Hershey Kiss	1	12	3	3	13	5
35.	The Blue Anime	0	1	0	3	1	0
36.	Un- known	3	4	0	4	17	2
37.	Waldo	2	5	0	1	9	1

After determining the prominent direction of a participant's evaluation of government and e-government, they were placed in groupings using the following matrix.



*Figure 3.1: Matrix of Participants' Perceptions – Government and E-Government*

To establish possible reasons for these attitudes, I returned to the earlier coding on themes and literature-derived basis of evaluations. The direction of evaluations informed the findings on participant perceptions, while the themes allowed further discussion of the findings from the research questions.

## VERIFICATION AND VALIDITY

### CREDIBILITY

Although the qualitative paradigm does not call for one true answer or complete objectivity, there are certain standards of credibility this study has strived to meet. Marshall and Rossman (2011) (referring back to Lincoln and Guba's (1985) seminal *Naturalistic Inquiry*), discuss such measures as prolonged engagement with the study setting and participants and triangulation of data through "multiple sources, through multiple methods, and using multiple theoretical lenses" (p. 40). Given the timeframe of this study (spread over 10-12 weeks at each school) and the multiple types of data collection strategies used throughout the study, both means of credibility are addressed.

Another suggestion of Marshall and Rossman (2011) (via Lincoln & Guba) is to employ "critical friends" to discuss findings. As mentioned earlier, this dissertation is embedded in a larger study, which is run by a research team. Through weekly meetings with both the larger team and my adviser, many of whom also attend the schools and know the participants, outside checks on preliminary findings have been gathered. Additionally, the initial set of open codes for school DD was read by a

researcher who also attended sessions at the school to see if these codes were appropriate.

#### TRANSFERABILITY

This study has a limited sample size that is not representative of other environments, even those with populations similar in age and interest level. Instead, the findings of this study are meant to spark other questions and to entice researchers to continue in this conceptual framework and topic of study.

#### DEPENDABILITY

Dependability, defined by Marshall and Rossman (2011) as “showing the ways by which the research plans to account for changing conditions in the phenomenon chosen for study and changes in the design created by an increasingly refined understanding of the setting” (p. 253), was addressed through iterative design changes as the study progressed from school to school. Each school had unique characteristics, just as each participant was unique, so the study was of course changed as external contexts changed.

#### CONFIRMABILITY

Although, again, this dissertation is not intended to reflect complete objectivity, the triangulation mentioned above is one step to approaching confirmability of researcher conclusions. Yin (2009) suggests that physical artifacts, while not traditionally relevant to case studies, can be “an important component in the overall case” (p. 113). Indeed, the artifact-producing data collection strategies employed in this study included word association lists produced by participants, the notes participants’

placed on the credibility screenshot poster, and the answers participants wrote on their surveys. These were useful to confirming answers recalled in field notes and for observing those instances when a participant's statements did not match his or her writing.

In addition, Maxwell (1996) suggests multiple analysis techniques, many of which were employed in this study, including: searching for alternative explanations; searching for discrepant evidence and negative cases; soliciting feedback from those familiar with the setting (the aforementioned research team); and collection of rich data (pp. 92-98). For example, to check the analysis of statements as positive or negative about government and e-government, two members of the research team independently analyzed 15 statements about government and 15 statements about e-government, chosen randomly. (All analyzed statements had previously been inserted into an Excel spreadsheet; the statements chosen for verification were in the lines of the numbers chosen by an online random number generator.) Out of the thirty statements, twelve statements differed in some way between my answers and the two researchers. Three of these differences were due to one of the other team members choosing two categories (e.g. I chose negative, one of the other researchers chose both negative and neutral) or another team member rating uncertain survey responses as positive (I, along with the other team member, rated these as neutral statements). In one case, a team member was not sure of the polarity and simply left it blank. In another case, a team member seemed to have read the question wrong (a participant disagreed that elected officials cannot be trusted – a positive evaluation that would be easy to read as negative because of the double negative).

The reasons for the remaining differences are categorized below and explained by discussing one or more of the examples of statements that team members and I coded differently. This process shows how I dealt with statements that might not have been clearly positive, negative or neutral.

- Reason One: Caution

One statement for which the team members and I differed was “I would define government as private, secret, and important.” I, along with one of the team members, rated this as neutral. One team member said that it was “positive and kind of negative.” The second researcher’s response is precisely why I used the neutral designation. It is possible the participant was being positive for some of these words, but it is also possible they were intended to be negative. When unsure of the polarity, I erred on the side of caution and categorized the statement as neutral. (A similar thought process was used for one of the other discrepancies, the statement “war.”)

- Reason Two: Context

The following is a statement a participant made about government:

“I think a government agency site is just as reliable as an insurance site because if you think about it, insurance, they want your money and they collect money if you die so they probably won't give you the correct information...Well, government collects taxes. Insurance gives taxes to the government.”

I categorized this as negative, while both team members chose positive. While initially surprised, I realized that the context of the quote within the larger



conversation in which it occurred made its polarity much more clear. This was true for two of the other discrepancies in coding.

- Reason Three: Researcher Viewpoint

The last two differences in codes were more amorphously related to researchers' individual categorization systems. In the first example, a participant said he or she thought government sites are helpful, but then went on to explain his or her reasoning by comparing dot org sites with dot com sites. I, along with one team member, categorized this as a positive evaluation, despite the apparent confusion in what exactly dot gov sites are. Another team member interpreted it as neutral. In the second example, a participant stated that, to find health information, "Government would not be my second choice. Well I can't say that, it would probably be...now that I'm reading the rest of these, it probably would be my second choice." The team members interpreted this as a positive evaluation, while I saw the equivocation as representing a more neutral viewpoint.

This check with outside researchers allowed me to question my own assumptions as to why I had coded statements with the polarity I did. The differing codes did not change any of my personal codes, but they did allow me to see how others might have coded differently and prompted me to elaborate in this section on why I used the system I did.

Another measure of confirmability that was specifically directed at checking the process of establishing participants' overall perceptions of government was the comparison of their negative/positive perception counts with their answers to two of the survey questions. The survey asked participants to answer (on a 5-point Likert

scale from Strongly Disagree to Strongly Agree) two questions specifically related to evaluations of government:

1. The government really cares what people like my family and I think.
2. In general, elected officials (e.g., senators, members of city council, governor, president) cannot be trusted.

While respondents' answers to these questions were coded as positive and negative and included in the counts described above, it is also useful to use a participant's answers to these questions as a check on what all of the statements in the program showed was a participants' overall attitude toward government. In other words, if a participant answered that the government does not care what people like he or she thinks and generally cannot be trusted, but was coded as being overall positive about government, there might be problems with the way positive and negative codes were assigned.<sup>10</sup> Fortunately, once the participants' answers of "unsure" and the "NED" and "neutral" participants were removed, there were only five answers that contrasted with the participant's calculated general perception. None of the participants' general perception was contradicted by both questions. All five discrepancies were for the question "The government really cares what people like my family and I think." Two participants (LMM-BB, LR-CC) who were generally positive about government, disagreed that the government really cares, while three participants (ACW-CC, MS-CC, and S117) were overall negative about government, but did think that

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<sup>10</sup> There is one important caveat about connecting the survey answers to the data compiled from the rest of the data instruments. The survey is not measuring exactly the same things as the other instruments. The general perception "assigned" to a participant uses data gathered from multiple points in time and the survey answers only capture a singular opinion.

government cared about people like them. The full results of this comparison can be found in Appendix Seven.

## ETHICAL CONSIDERATIONS

The HackHealth study (and, thus, this study by the nature of how it was conducted) was reviewed and approved by the University of Maryland's Institutional Review Board. The research, to my knowledge, did not have any negative effects on the participants (and was in fact intended to benefit them directly). That said, there were certain ethical considerations as data was collected and analyzed. Perhaps the most significant was the power imbalance between the participants and the researchers. Because of traditional adult-student relationships in schools, in which the adult is presumed some degree of authority over the students, and because the HackHealth program takes place in the school setting (albeit in the school library, usually a more casual environment than a classroom), the adult researchers were likely presumed to have at least some degree of authority. This worked well for instruction, but lessened the degree of accuracy in seeing how youth interact among their peers without adult interference. To mitigate this power differential, we attempted to ensure each participant's privacy while recording their conversations, all participants were asked to contribute, not just the outspoken, and all participants were treated with respect. Constant awareness of this issue was highly important throughout the program and data collection.

## **CHAPTER 4: FINDINGS**

The following chapter discusses findings based on the data collection strategies outlined in chapter three. Study participants' perceptions of government and e-government are discussed first, followed by a comparison of these perceptions.

### **RQ #1: WHAT ARE HACKHEALTH PARTICIPANTS' PERCEPTIONS OF GOVERNMENT?**

At the outset of this study, researcher-assigned definitions of the term "government" were left intentionally vague. This was a conscious decision made in order to uncover how these participants arrived at their opinions on government. In other words, one aspect of the research question was uncovering what concepts of government figured into the formation of these youths' perceptions. These conceptions were considered with two sets of the data: 1) how participants defined government in their survey (in answer to the question "How would you define 'government'?") and 2) an assessment of the entirety of the statements made by participants about government and e-government. These were coded as neutral, positive, or negative, and organized according to the category of the evaluation.

#### **PARTICIPANTS' DEFINITIONS OF GOVERNMENT**

In their definitions of “government,” participants<sup>11</sup> varied in the boundaries they placed on the institution. Eight participants used the generic word “people” in their definitions, such as Nunu’s (CC) answer that government is “A group of people that make laws, also people who gather info of other places or jobs.” A few participants mentioned the President or presidents specifically, either by defining the government as a president (Un-AA; MS-CC; Kat-CC, Wal-DD) or by mentioning the President, e.g. “Government - helps the president with decisions” (JtG-CC, as well as S4L-CC). Other participants thought of government in terms of a place or area (Bat-AA, Anon-BB, CIC-CC, Jess-DD, and F57-DD), a group (AL-DD), a service (SHK-CC), an agency (Fl-DD), and “a thing” (TBA-CC). Sparten117 (AA) described the government as “branches.” In addition to these conceptions, participants considered the functions of government. Table 4.1 shows the most common:

*Table 4.1: Common Functions Included in Definitions*

<b>Function</b>	<b>Number of Mentions</b>	<b>Examples</b>
Law-making	8	<ul style="list-style-type: none"> <li>• “As a place where people talk about laws” (Bat-AA)</li> <li>• “A group of people that make laws, also people who gather info of other places or jobs” (Nu-CC)</li> <li>• “People who make laws” (Un-AA)</li> </ul>
Generally helps or does not help America/Americans	6	<ul style="list-style-type: none"> <li>• “The government stands up for our rights and laws” (MR-DD)</li> <li>• “The government does not care about the economy or us...” (JJ-BB)</li> </ul>

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<sup>11</sup> Because Chocolate Rain (CC), SuperSweet (BB), Nightwing (AA), NinjaGirl (BB), and Mr. Goldan Man (BB) did not complete the survey, their definitions are not reflected in this section.

Protection, Safety, and Security	5	<ul style="list-style-type: none"> <li>• “To me government is a group that ensures security and safety” (AL-DD)</li> <li>• “A place to protect our state” (F57-DD)</li> </ul>
Leadership, Law, and Order	5	<ul style="list-style-type: none"> <li>• “The agency that runs a country” (FI-DD)</li> <li>• “A service which helps to run and keep America a civilized place” (SHK-CC)</li> <li>• “The people that control our society” (Gab-DD)</li> </ul>
Taxation	3	<ul style="list-style-type: none"> <li>• “...they steal our taxes to give to other countries” (JJ-BB)</li> <li>• “A thing where people collect taxes and help other people” (ACW-CC)</li> </ul>

Other participants described the government as “secret” (DW-AA; Mar-CC), fair (PP-AA), “somewhat” untrustworthy (ND-BB), reliable and serious (HK-CC), and private and important (Mar-CC). Many of the themes reflected in these definitions reoccur throughout the data and will be discussed both in this chapter and in chapter six.

Overall, many of the definitions were neutral statements (e.g. the definition offered by FI-DD in Table 4.1), but many also demonstrated emotional responses toward the government (e.g. JJ-BB’s definition). We turn to these evaluative statements next.

#### THE FOCUS OF PARTICIPANTS’ EVALUATIONS OF GOVERNMENT

The next section examines the factors through which participants filtered their evaluations of government, as well as whether these evaluations were positive or negative. Table 4.2 identifies five categories taken from the literature on trust and government (Hetherington, 1998), as these categories aligned with the types of assessments participants made, and from the data.

<i>Table 4.2: How Participants Evaluate Government</i>	
<b>Evaluation is based on assessments of...</b>	<b>Justification and Definition</b>

<p>Specific Institutions</p>	<ul style="list-style-type: none"> <li>• Hetherington (1998) asserts that “Feelings about the component parts of an organization should, in general, inform feelings about the organization itself.”</li> <li>• Includes participants’ opinions of government based on their opinion of institutions, such as elected officials and political parties, as well as the more general “people” they refer to as carrying out the duties of government</li> </ul>
<p>the President</p>	<ul style="list-style-type: none"> <li>• Hetherington (1998) quotes Citrin (1974) and Citrin and Green (1986) who, in past studies, found that “political trust is most strongly a function of presidential approval and the president's personal characteristics” (p. 793).</li> <li>• Includes participants’ opinions of government based on their opinions of President Obama</li> </ul>
<p>Policies and Policy Outcomes</p>	<ul style="list-style-type: none"> <li>• Evaluations based on participants’ issues stances; the farther they are from “where they perceive the federal government to be, the less trustful they are” (Hetherington, 1998, p. 793, citing Miller &amp; Borrelli, 1991).</li> <li>• Includes participants’ opinions of both government based on their assessment of general government operations (e.g. their role in providing security) as well as of specific policies (e.g. the American Care Act).</li> </ul>
<p>Information from the Media</p>	<ul style="list-style-type: none"> <li>• Evaluations formed by the influence of “...the distribution of positive and negative information people receive about the government” (Hetherington, 1998, 794).</li> <li>• Includes participants’ opinions based on their experience with media’s evaluation and presentation of government</li> </ul>
<p>Government in General</p>	<ul style="list-style-type: none"> <li>• In vivo</li> <li>• Includes participants’ references to the degree to which the government is fair, impartial, non-discriminatory, equitable, and trustworthy without a specific</li> </ul>

	clarification on what they were basing these assessments
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The sections that follow describe both the positive and negative perceptions of participants within these categories. This organization demonstrates the frequency with which participants had polar opposite opinions on similar issues. For example, while many participants stated their belief in the government's equity, other participants said that they believe the government is unfair. Other themes included trust, economics, effectiveness, helpfulness, and knowledge. In addition to these general evaluations, more specific themes, including government secrecy and surveillance, terrorism, and government defense emerged from both the positive and negative statements. While the sections below demonstrate examples of the participants' positive and negative statements in general, chapter six will return to these themes to discuss the implications of the participants' foci and evaluations.

#### *EVALUATING GOVERNMENT THROUGH OPINION OF INSTITUTIONS*

While participants did not often mention specific institutions, many of their positive statements reflect an assessment of the people who run the country. Percy Potter (AA) listed in his word association the term "leadership" to describe government. Coffee Ice Cream (CC-I) said government is "something like a second president," which means "they help run the United States, and you know, keep it good, not bad and stuff." In his interview, Flash (DD-I) said government means "a type of agency or type of group that runs the country and helps makes the country better." Ana Lynch (DD) said she believed that "the government is a group to keep people secure, and safe," and when asked if she trusted them, she replied in the affirmative.



The lack of specificity in institution may be due to a lack of knowledge; in one instance, a researcher asked participants to give her an example of a trusted source. Cap'n Crunch (DD) answered "The FDC," but could not recall what it stood for past "Federal" (RTON). Additionally, seven (out of 32) respondents answered the survey question "What is a government agency? If you can, give an example" with, "I don't know," "?," "I'm not sure," or left the question blank.

Some negative assessments focused on elected officials. Chocolate Rain (CC) and Unknown (AA) both mentioned that elected officials often say one thing, but do another. More specifically, Chocolate Rain (CC-I) said that "when people run for governor and stuff like that, they tell you one thing and then they win and they don't come through with what they said." Unknown (AA-WA) referenced that politicians make promises during campaigns, "oh I'm going to do this this this and this" but in fact "they don't do any of that." The survey also specifically asked respondents whether they felt elected officials could be trusted. Eleven participants (just over one-third) either disagreed or strongly disagreed with the statement.

Political parties came up at school AA. Unknown (AA-WA) mentioned "Republicans" in his word association, which prompted Nightwing (AA) to note that he doesn't "like them." Unknown agreed, saying he "go[es] for Democrats." Batman (AA-WA) mentioned that he had heard "that many people, many Republicans, only a small party refused that President Barack Obama [should] be President. For some reason." He elaborated that he thinks that is "wrong because it was two mixed presidents so far. Frederick Douglas and President Barack Obama." Putting aside the incorrect history, it was clear that, while he did not know why the other party disliked

the President, he equated it in some way to race. Cap'n Crunch (DD-I) echoed these sentiments when he told a researcher that, since he is Hispanic, he feels “offensive [offended] when Republicans made decision about immigration.”

#### *EVALUATING GOVERNMENT THROUGH OPINION OF THE PRESIDENT*

Surprisingly few of the students evaluated the President at all during the program. Many wrote “the President” in their word associations and all respondents to the survey knew that Barack Obama is the current U.S. President, but none of these answers carried any sort of judgment either way. Batman (AA-I) did elaborate on his assertion of the government’s usefulness “in information” with the explanation that “President Barack Obama usually has meetings...to declare laws, how will the laws be treated, why do we need the laws, and how good the laws will be when you announce them.” On the more negative side, during one session at school BB Natsu Dragniel, Jazzy Jay, and Anonymys had a discussion about whether the President is “a puppet” because, as JJ opined “you say you care about the people, you should have enough time or something to at least write the speeches to say to the people.” Anonymys reminded the group that he has to “sign bills,” but JazzyJay was undeterred (WAR).

#### *EVALUATING GOVERNMENT THROUGH POLICIES AND POLICY OUTCOMES*

While mentions of specific policies were rare, participants frequently talked about government decisions and actions generally. Among the positive statements

representing this evaluation, Dr. Who (AA-I) said that the government “can make really good decisions to help lots of the people.” LolaRam (CC) wrote in her word cloud about government “helpers” and further clarified that she thinks “the government helps you in paper, work, and money.” Agent Chicken Wing (CC-S) defined government as “A thing where people collect taxes and help other people” and Flash (DD-I) said that the government is “good” and that “they help the environment and people...like the communities.”

Some participants had a positive view of government as it related to jobs or the economy. Ana Lynch (DD) for example wrote “high quality job” in her word association for government. Agent Chicken Wing (CC) noted that “when we get our tax, it goes to the government and then helps us, so I think that's good.” Similarly, Batman (AA) told an interviewer “Government means to me, like as a part of our life, like taxes. Taxes help, benefit people if they're cops, police, usually they get reductions and that money, that money that they have goes back to them too. Because you know you get income tax which goes back to you.”

Evaluations of government’s policies were not all positive, however. Two of the participants noted that they do not like it when the government makes decisions with which they do not agree. Jay the Greatest (CC-I) said that “at times it [government] could have a point, but sometimes it needs to help people out more cause sometimes we may not agree with what they say.” Queen Pam (CC-I) agreed, saying “You can trust them a little, but not sometimes because they may make decisions without us agreeing on it.”

Sparten117 (AA-WA) asserted that the government “make[s] stupid laws” and referenced that in the state in which the research took place and where he lives, “there's pretty much taxes on everything and my dad's really mad.” Sweet Hershey Kiss (CC-WA) also had concerns over monetary policy:

I have trust issues when it comes to money. Think about it...When you first start dealing with the government when you become an adult, you have to go through forms, beginning to get tax money and having to pay tax money, and when it comes to the government, sometimes they try to out cheat you with your money.

Natsu Dragniel (BB-WA) negatively referenced the government’s funding of wars, saying that “they...get into other countries’ business.”

In a few cases there were discussions about specific policies. One of these instances was the Ebola outbreak of 2014. Kira (DD) thought that the government responded “pretty well” to the scare and Morgan Rice (DD) remembered that “they didn't let some people from East Africa in” and that she “kind of did agree that they were checking them and then they did let them come in, but they had to get a check-up to see if they had Ebola.” When a researcher asked the group for an example of a time the government “screwed up” (echoing the words of participant), Nightwing (AA-WA) answered “ObamaCare...A whole lot of people didn't like ObamaCare. I don't know why, but I just know ObamaCare was a problem.”

*EVALUATING GOVERNMENT BASED ON MEDIA’S ATTITUDE TOWARD GOVERNMENT*

Many students connected their distrust of either the government or the media with their perception of the other. Sweet Hershey Kiss (CC-CS) said she would not go to government agency websites for information, because she has “kind of a trust issue with the government. They change their story all the time, just like the news, that's why I didn't choose news websites. Cuz there's no way on TV there can be news at 5, news at 6, they're just changing the story up a little bit and replaying on TV.” She mentioned in another session that she does not read the newspaper “because it's not worth it” (SHK-CC-WA). When asked how she finds out about issues, she said she mostly gets alerts on her phone or her mother tells her things. She said, however, that “most of the time [she doesn't] really trust...so many things have happened and the government have made promises that they've never been able to keep.” ACW (CC-WA) said she does not like the news because it scares her. She agreed with Marie and SHK that “the media does have a big impact because something might happen, but what the media tells us might not be true” and when asked whether she thought the government has influence over what the media says, she replied that “maybe they bribe them to say this or that.”

Many of the students gave examples of learning things about the government from media. Most of these statements were negative and many of the anecdotes mentioned are conspiracy theories. This information came from both entertainment and the news. Kira (WW-WA) learned about Area 51 from a documentary she saw on the Discovery Channel, Ms. Sterious (CC-WAR) thought she heard about it from the movie *Monsters vs. Aliens*, and Mr. Paste said he gets his information on the government's secrets from a show that airs on weekend nights on (he thinks) the CW.

Chocolate Rain (CC-I) just mentioned she learned about these types of theories online:

There're a lot of theories when you go online...because the world is really overpopulated and [the government] secretly knows the cures to these things [that] they're not exposing...like the guy who had Ebola, how come the nurse, the patient died, the nurse died, but then one of the researchers who caught it, he's still alive? I don't trust them!

Some of the information was more vaguely sinister, such as ACW's (CC-ON) account that she saw on CNN that the government is "planning something." While she could not remember the details, she said "I know it's bad..." JazzyJay (BB-WAR) remembered that she has heard about "these policemen raping...girls" and notes to her fellow participants that they would have heard about it too "if [they] listen to the news..."

Some of the media's information that taught participants about the government was more positive. Morgan Rice (DD-I) mentioned that she "heard...on NPR or something, that [the government] checks all our text messages...That someone gave out the secret," but she thinks that is okay because of the threat of terrorism. Kira offered as a reason for her positive assessment of the government's response to Ebola, "As you can see in the news, there's not a lot more cases of it." A few of the participants even learned about government websites from the media. Cap'n Crunch (DD-WA) noted that government websites make him think about exercise because "sometimes there are commercials that say every child should get active at least an hour a day. And then go to this website, something I can't

remember...like getactive.gov or getmoving.gov.” Unknown (AA-I) heard about a government website for healthcare on the news and Dr. Who (AA-WA) mentioned that he connects health to government because he had heard ads for healthcare.gov.

#### *EVALUATING GOVERNMENT IN GENERAL*

Some of the participants’ perceptions either were based on a non-specific idea of government or on one that they did not specifically state. For example, many of the participants described the government as trustworthy. Participants phrased this in a variety of ways. When asked in an interview whether they trusted the government, both Morgan Rice (DD) and Ana Lynch (DD) simply said yes. Hopekeeper (CC) listed “trustworthy” in her word association. Morgan Rice (DD) noted in her survey that “The government stands up for our rights and laws.” None of these statements clarified how the participant was defining government, however.

This happened with negative assessments as well. Marie (CC-WA), for example, explained that though she trusts the government to a level, it depends on what they're talking about. There's been a couple of cases where they haven't been particularly honest about what they're doing or what is happening and they make people think all these things are happening and in reality they're not.

In response to a researcher’s questioning whether she trusts government, NinjaGirl (BB-CS) mentioned that the government “can take your house away.” Though she was sure they could not take kids away, they do “take their houses, their car, their money, their phone.” This seemed to be from personal experience as she

told the researcher that she knows someone to whom this has happened. Participants also brought up more general ideas of inequality. Chocolate Ice Cream (CC) wrote in her word association that the government is “mean with Spanish people.” Presumably these opinions are referring to either specific government policy or officials, but the participants did not elaborate on which.

#### PERCEPTION OF GOVERNMENT: PARTICIPANTS’ OVERALL ATTITUDES

As was expected, participants generally did not have only negative or only positive things to say about the government. For example, during one word association activity, Batman (AA) stated “Government gives rules [positive], but some rules are iffy and they basically don't make sense [negative].” Thus, the analysis strategy outlined in chapter three was useful in gaining a better understanding of participants’ dominant attitudes. Using the participants’ total number of positive and negative statements about government, Table 4.3 below lists the participants in either the positive, negative, or neutral categories.

*Table 4.3: Participants’ Dominant Attitude about Government*

<b>Generally Positive about Government</b>	<b>Generally Negative about Government</b>	<b>Neutral about Government</b>	<b>Not Enough Data</b>
1. Ana Lynch (DD)	1. Agent Chicken Wing (CC)	1. Batman (AA)	1. Gabriela (DD)
2. Anonymys (BB)	2. Chocolate Rain (CC)	2. Cap'n Crunch (DD)	2. Jessica (DD)
3. Dr. Who (AA)	3. Coffee Ice Cream (CC)	3. Waldo (AA)	3. Katniss (CC)
4. Flash (DD)	4. Jay the Greatest (CC)		4. Mr. Golden Man (BB)
5. Foxy 57 (DD)	5. Jazzy Jay (BB)		
6. Hopekeeper (CC)	6. Jessica (DD)		
7. Kira (DD)	7. Mr. Paste (CC)		
8. LilMarMar (BB)	8. Ms. Sterious (CC)		
9. Marie (CC)			



10. Morgan Rice (DD)	9. Natsu Dragniel (BB)		5. SuperSweet (BB)
11. Nightwing (AA)	10. NinjaGirl (DD)		
12. Percy Potter (AA)	11. Nunu (CC)		
13. Soccer4Life (CC)	12. Queen Pam (CC)		
14. The Blue Anime (CC)	13. Sparten117 (AA)		
15. Unknown (AA)	14. Sweet Hershey Kiss (CC)		

As demonstrated by Table 4.3, participants were almost as equally likely to have a positive perception of government as they were to have a negative one. The categories of participants' perceptions make it clear that these perceptions are based on a variety of inputs, foci, and themes, which will be discussed more in chapter six.

## RQ #2: WHAT ARE HACKHEALTH PARTICIPANTS' PERCEPTIONS OF E-GOVERNMENT?

While the survey asked participants to define government, for e-government the goal was to find out if the participants had any knowledge of government websites. The survey asked "What is a government website? If you can, give an example." The second research question has been answered with both the answer participants gave to this question and an analysis similar to that of government using the entirety of the data set coded as to being about e-government.

### PARTICIPANTS' KNOWLEDGE OF E-GOVERNMENT

The participants' answers to the question of what government websites are fit into six categories, with some answers fitting multiple types:

1. Definition (Correct)
2. Definition (Positive)

3. Definition (Function)
4. Example (Correct)
5. Example (Incorrect)
6. Unsure

An answer was deemed correct if it somehow connected dot gov websites to being made, run, or owned by the government. An example was deemed correct if it included a URL ending in dot gov that exists or was a dot org that was run by the government. Conversely, an incorrect example listed a site that does not exist or a URL ending in something other than dot gov. A functional definition did not necessarily equate the site to government, but instead provided a use for the site – to look up information for example. Finally, a positive definition used a descriptor that expressed something good about government websites, i.e. that they can be trusted (Bat-AA) or that they are “vital” (MP-CC).

Of the 32 participants who filled out the survey, half left the question blank, answered that they did not know, or otherwise indicated their lack of knowledge. Three of the other 16 participants offered incorrect examples of this type of website – Ana Lynch (DD) wrote “a pbs.org website” and “maybe nlh.gov, I forgot the name,” Foxy57 (DD) wrote “www.government.com,” a website that does not exist, and Soccer4Life (CC) wrote that a local newspaper’s website “sometimes talks about the government.” Of the 13 participants who answered the question correctly in some way, three simply mentioned that the government made or owned the sites (ACG-CC; Jess-DD, and Kir-DD). Others gave examples of government sites or listed a function of government websites. In the former case, three listed healthcare.gov (PP, Un, and

S117, all from school AA and, in this case, all seated next to each other while completing the survey). One student wrote cdc.gov (Kat-CC) and one listed a dot com address that was nevertheless a local government school district website homepage (CC-DD).

The students who wrote functions largely focused on the fact that the sites provide information. Health information was a focus (easily explainable by the nature of the after-school program during which the survey was administered) (DW-AA; the aforementioned healthcare.gov). Students also mentioned taxes (DW-AA), laws (Kat-CC), and general information (MP-CC, Jes-DD, and Bat-AA). Those that were positive about the sites said they were helpful (DW-AA) or gave trusted information (LMM-BB).

The surveys were only one set of data collected that offered insight into participants' knowledge of e-government. From other data, participants showed a broader understanding, though misunderstandings were still apparent. Many of the participants who were unsure of the answer about e-government in the survey made statements that seemed to suggest they knew more than the survey would suggest. Coffee Ice Cream (CC), for example, listed in her word association that dot gov sites were "government info." Morgan Rice answered in the HLAT that she "chose dot gov because the government writes it so [she] trust the government [sic]." It is possible that the respondents were not aware of examples and that is why they answered the survey the way they did.

Regardless of how they formally defined government websites, many participants demonstrated continued confusion of what government websites actually

are. Ana Lynch (DD), for example, who generally seemed to have had experience with government websites (after a researcher asked during the word association whether there was anything special about government websites, she answered that “it’s dot gov”; she used cancer.gov for her final project in the after-school program), seemed to identify dot org sites with dot gov sites. After a researcher asked during an interview whether she had been to any government sites other than one she had mentioned already (the National Library of Medicine), she answered yes. The researcher followed up by asking how she had found out about the sites, such as through Google. She answered “sometimes the websites, they really gave information on the topic I was using. So one that I used for the 1960s, I was searching up motown, and it had motown museum.org”

Other students seemed to believe that government agency websites are only about government as the following interview segments demonstrate:

- Researcher: Okay how about you? Which one would you not go to? Or the least likely that you'd go to?

LMM (BB): Government agency websites and religious/cultural websites?

R: Why not?

LMM: Because they like deal with the government and they talk about politics. And religious/cultural websites because they deal with like religious stuff.

- Researcher: If you've never used a site with dot gov, do you have an opinion about it?

LolaRam (CC): It's something about governments right?

A common source of confusion among participants was about the authorship and creation of government websites. During the word association with Sparten117, Batman, Nightwing, Unknown, and Percy Potter (all AA), no one seemed quite sure who makes government websites:

Researcher: Who do you think makes those websites?

All: Government

R: Who in the government?

N: The president

B: I forgot who the governor is.

PP: Maybe the vice president?

S117: I think they might have their own like special thing where there's a group of people that design it.

PP: Somebody who is very good with computers.

Some of this confusion manifested in reasons given for liking or disliking e-government that were incorrect. For example, when LilMarMar (BB) answered a researcher's question about what she liked about a government website she had been to, she said she "thought that it was easy to trust, because dot gov websites, you can trust them because they're run under a government or sometimes run under a university." Dr. Who (AA) said the feature he liked best about government websites was that "some government websites ask you questions if you need, and it wouldn't take long for them to answer, you would get the answer in a few days and it's easy to know more about it because they would give...detail[s]." A researcher followed up

by asking if he meant that he could post a question to the site. Dr. Who replied yes, and that the website would answer.<sup>12</sup>

Contradictory opinions also represented this general confusion. Consider the following exchange that took place during the interview with Queen Pam (CC) (italics added for emphasis):

Researcher: What do you think about dot gov sites in general?

QP: It gives a lot of information, and it's really helpful

R: Okay. *Do you believe it*, the information?

QP: *Some*

Then, later in the conversation:

R: [QP], *what do you like best* about dot gov websites?

QP: That *you can trust* the website

This is not an isolated incident. In fact there were far more egregious examples of contradictory attitudes. Jazzy Jay (BB) demonstrated disconnect between her opinion of government and e government, as did Agent Chicken Wing (CC). On her health literacy assessment, JazzyJay wrote down that she chose the URLs dot org, dot gov, dot edu “because the websites seem more accurate,” but claimed several times during the program that the government gives false information. Agent Chicken Wing noted during the card-sorting exercise that she would “choose the Internet because say you want to learn about a disease like cancer. It's going to pop right up and to see if it's

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<sup>12</sup> While it is possible that this feature exists, I have yet to come across it on a government website. It seems like he may be getting that site mixed up with the AskUsNow feature on many library websites.

accurate you search other websites. I recommend dot gov,” but was then reminded by a researcher that she had “just said a minute ago that you wouldn't ask the government. But the government creates the dot gov websites. So...?” Agent Chicken Wing simply replied “Oh. When I ask, well I go on the Internet for websites [unclear] a search engine. I'll use Google.” These examples are not meant to disparage the participants. Rather, they show a critical gap in understanding of the connection between government and government websites and in knowledge of e-government generally.

#### PARTICIPANTS' EVALUATIONS OF E-GOVERNMENT

The evaluations of e-government are organized into categories indicating the aspects of government websites that influenced the participants' perceptions. These categories and definitions are listed in Table 4.4. Many of these categories mirror those found in the literature on credibility assessment, which makes sense due to both the nature of the questions asked in certain data instruments about credibility, as well as the emphasis on website credibility assessment during the after-school program. That said many of the assessments were based on relevance, usefulness, and other metrics, which is generally clear in the participants' statements.

<b>Evaluation based on...</b>	<b>Definition</b>
Surface Characteristics	Relies on the website's aesthetics and properties
Message and Content	Based on the information found on the site
URL	URL suffix indicates quality
Recommendation	Influenced by the recommendation of an authority figure
Information Source	Based on the source of the information

Prior Experience	Prior experience with the information source
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*EVALUATIONS BASED ON SURFACE CHARACTERISTICS*

Some participants mentioned characteristics such as dates and aesthetics in their evaluations. Katniss (CC) observed that the CDC page she visited had a recent date which meant that she could trust the information and LolaRam (CC) used the look of the site to explain her feeling that it was “trustful” (BON). Other participants liked the amount of information government websites provide. Agent Chicken Wing (CC), for example, noted in her word association that dot gov websites have “a lot of information.”

On the other hand, LolaRam (CC), did not like the design of a government website she visited, expressing her dissatisfaction with the color and saying it “looks old” (BON). Katniss (CC) was not fond of a CDC site because it “had too much to read and that it should have something you can press to enlarge the type ‘because it’s a lot!’” (BON). At the same time, Mr. Paste (CC) noted that alzheimers.com did not have “a lot of info” showing either the participants’ differing expectations or the differences in the content of different government pages.

*EVALUATIONS BASED ON MESSAGE AND CONTENT*

Some participants focused more on the content itself. Several wrote in their word associations that the information is “important” (HK-CC, Mar-CC, and SHK, CC). Katniss (CC) also mentioned importance during her interview. When evaluating Alzheimers.gov during the poster screenshot activity, Dr. Who (AA) wrote that the site “Helps with answers to the problem” and Sparten117 (AA) noticed the questions



and answers section. Mr. Paste (CC) wrote in the survey that a government website is “a place with information vital to us.” Queen Pam (CC) told her interviewee that a government sites “gives a lot of information and it's really helpful.”

Cap'n Crunch (DD) chose government agency websites during card-sorting because “they usually use trusted resources” and Nightwing (AA) said “they get valid information. They usually back up with evidence and they give a whole bunch of reasons, well not reasons, but information on Alzheimers.”

Soccer4Life (CC-CS), however, perceived government websites to occasionally offer information that is too specific for her needs; she does not like when she is looking for basic information and “they start giving all this information about one thing.” Coffee Ice Cream (CC) had a variety of negative things to say about the content in her word association list; she wrote that “dot gov sites “List less important things,” have a “Little bit of info,” are “top secret,” and are “sometimes useless.” Kira (DD-PS) thought there were too many opinions on the page: “Well ‘the burden,’ words are just opinions, it's kind of just of a more biased to me than states you want, you don't want other people's opinions.”

Other evaluations were about features of the site, such as video or pictures. Batman (AA-PS), for example, liked that alzheimers.gov gave “a video to look at.” On the other hand, when evaluating the alzheimers.gov homepage during the poster screenshot activity, Anonymys (BB) had a mixed evaluation because of the inclusion of the YouTube video:

“It's dot government, so the government, I'll assume made it, or had help with it, but it's good, yet bad, because of YouTube. And the person on YouTube

might not be an expert on Alzheimer's or this could be a very old website and the information could be outdated.”

#### *EVALUATIONS BASED ON URL*

Many participants simply answered “it is dot gov” (such as S117-AA and MP-CC during their respective poster screenshot activity) to describe why a government website should be trusted. They seemed to be relying on an established belief in a website with this URL suffix. Similarly, in their more general descriptions of what they thought of dot gov sites during word association, several participants used synonyms of credible, including “reliable” (Anon-BB) and “trustworthy” (HK-CC and LMM-BB) without specifically mentioning that the reason is because of the source (government) or because someone told them that dot gov means reputable. Rather, they simply took this credibility for granted.

#### *EVALUATIONS BASED ON RECOMMENDATION*

Interestingly, not many of the participants mentioned explicitly that they evaluated government websites based on a teacher’s influence. Hopekeeper (CC) did describe in an interview that she would trust dot gov or dot edu sites more because “that's just what our teachers tell us, that's more secure, where you can get the information.”

Batman (AA-I) explained that government sites are useful (emphasis mine):

Why? Because they help you out in the information that you really want and that information...will benefit you if you have a special assignment that you have to do and it would basically be a breeze, because you're going to look on the internet and you're already thinking, okay I already know what to do and

this is going to be easy. *I have the website that I'm going to link to the project and then the teacher will be impressed, like okay good.*

Overall, however, the subject of suggested use from authority figures was not a central feature of the young people's assessments.

#### *EVALUATIONS BASED ON INFORMATION SOURCE*

Many of the participants cited the expertise of both the government and the experts who they thought created the sites as reasons for their positive perceptions. Marie (CC-CS) stated that, for school, she “would go to a government-approved website.” She knows “nothing about history, [she is] not a history person... And government most of the time are smarter than me, so it's okay.” Hopekeeper (CC) wrote during word association that dot gov sites have “Information from doctors themselves.”

Several students mentioned that they trust the sites specifically because they are from the government. Soccer4Life (CC-CS) gave one reason: “Because they know exactly what's going on and they just write about it.” Anonymys (BB-I) said he tends to trust government sites because they are “regularly checked by the government, and they know what they're putting on there. And they're like military experts, or experts in general.” During poster screenshot activities, Morgan Rice (DD) asserted that the government is “more reliable because they're not expected to lie.” Percy Potter (AA) said during an interview that he thought “the government wouldn't just put like some random things on it...” During card-sorting, ACW (CC) recommended dot gov sites to confirm information found on other sites.

Other students liked government websites because the established credibility of the source meant they were easier to use. For example, Anonymys's (BB-I) favorite thing about government sites was that they do not require having to "try to criticize, see if it's fake or not." Dr. Who (AA-I) noted that he had first found out about government websites in sixth grade when he was looking for information on a science fair project. He told the researcher that he ended on government websites because "...When [he] searched it, most were like Wikipedia, that's mostly where it showed at all." He did not trust Wikipedia when he "got on there [and] it said edit and [he] knew that somebody could change it."

Throughout the program, a considerable number of participants mentioned safety and security in their assessments of government and government websites, which were almost universally positive statements. Percy Potter, for example, noted that government websites are probably "[done] by computer professionals so people can't hack into the website and change stuff." Nightwing noted that "government is secure and there's not going to always be bad stuff on government websites." Natsu Dragniel (BB-WA) said he thinks government websites are "safe, secure," as did LilMarMar, Mr. Golden Man, and Anonymys (all BB). Additional examples of all of these issues are found throughout chapters four and five.

Conversely, the vast majority of participants' negative opinions of e-government were also credited to the source of the information. Marie (CC-WA) explained that her perception that government websites are "someone's opinion," that they "can be facts...biases, they could be telling you what they want you to know and not really telling you what's actually happened" is due to her "experience with the

government itself.” When a researcher asked if that had been her experience with government websites, she explained that “dot gov has something to do with government obviously, so I'm going on, my opinion, what happens with the government, I have trust issues with the government, of course...so I have trust issues with anything, well not anything, but a majority of things that have to do with the government.”

After finding out that a website she had been using was in fact a government site, ACW (CC-ON) said she did not trust it after all. MS (CC-ON) was also emphatic that it shouldn't be trusted. A researcher asked why and she answered that the government is telling you fake stuff. During card-sorting, Batman (AA) said he would not choose government agency websites because they are “random.” When asked why they are random, he replied “Because the government is like a secret stuff. I'm not gonna get into that, so I'm just going to leave it alone.”

Several participants cited their wariness of the government tracking their searches when discussing e-government. During the word association discussion, Percy Potter (AA) said that he thinks “government websites are good and bad...bad because if you do one little thing like the government might be suspicious on you.” Nightwing echoed this, saying that “you never know if the government could be suspicious, like he said. And they can probably be spying on you and trying to get some information and I know these days now governments going to be really spying on some people because ISIS...” Sweet Hershey Kiss (CC) also made a reference to this during her interview:

Dot gov, um to me that's like short for government, of course, so to me that's clearly to stating to me that what I'm looking up the government knows that I'm on and that they're monitoring me and they can see what I'm typing, I'm scrolling, what I'm highlighting and everything. So using dot gov to me is kinda like a little tense-y cause you know you're dealing with people who deal with criminals and stuff like that.

#### *EVALUATIONS BASED ON PRIOR EXPERIENCES*

Participants who described previous experiences with government websites were mostly positive. ACW (CC) said during the word association activity that she had been to a dot gov website and she liked it. During her interview, ACW (CC) described one government site she had been to – something like “government student dot gov.” She said “shows history about the U.S., maps, different sorts of things” and that the best thing about the site was that she “could find what she needed, that “it was all there, everything.” Ana Lynch (DD) mentioned in her interview that the National Library of Medicine site she had been to was “really easy” and that another she visited “had a lot of information.” She also used cancer.gov for her final project in the after-school program. Though she couldn’t remember the exact website she had been to, LilMarMar (CC-I) said she “thought that it was easy to trust.” Katniss (CC-I) said the site she used had “important information” and Queen Pam (CC-I) said the dot gov site she used “gave a lot of information on the topic.”

#### *PERCEPTION OF E-GOVERNMENT: PARTICIPANTS’ OVERALL ATTITUDES*

Just as with government, participants had a wide range of both positive and negative opinions and perceptions of e-government. Each participant's coded opinions about e-government were counted and then totaled in the positive and negative categories.

The same process as was used for government perceptions above was applied to e-government. Table 4.5 shows in which direction each participant leans.

*Table 4.5: Participants' Dominant Attitude about E-Government*

<b>E-Government Positive</b>	<b>E-Government Negative</b>	<b>E-Government Neutral</b>	<b>Not Enough Data</b>
1. Agent Chicken Wing (CC)	1. Chocolate Rain (CC)	1. Mr. Paste (CC)	1. Foxy57 (DD)
2. Ana Lynch (DD)	2. Coffee Ice Cream (CC)		2. Nunu (CC)
3. Anonymys (BB)	3. Jazzy Jay (BB)		3. SuperSweet (BB)
4. Batman (AA)	4. Jessica (DD)		4. The Blue Anime (CC)
5. Cap'n Crunch (DD)	5. Sweet Hershey Kiss (CC)		
6. Dr. Who (AA)	6. Ms. Sterious (CC)		
7. Flash (DD)			
8. Gabriela (DD)			
9. Hopekeeper (CC)			
10. Jay the Greatest (CC)			
11. Katniss (CC)			
12. Kira (DD)			
13. LilMarMar (BB)			
14. LolaRam (CC)			
15. Marie (CC)			
16. Morgan Rice (DD)			
17. Mr. Goldan Man (BB)			
18. Natsu Dragniel (BB)			
19. Nightwing (AA)			
20. NinjaGirl (BB)			
21. Percy Potter (AA)			
22. Queen Pam (CC)			
23. Soccer4Life (CC)			
24. Sparten117 (AA)			
25. Unknown (AA)			
26. Waldo (AA)			

As the Table 4.6 demonstrates, far more participants had overall positive perceptions of government website than they did negative. Only six participants who provided enough data in which to categorize made mostly negative statements.

## SUMMARY OF FINDINGS

This chapter has examined the data to better understand participants' perceptions of government and e-government. Perceptions were considered on the basis of the participants' definitions and knowledge of the terms, as well as the evaluative statements they offered throughout the period of data collection. Overall, participants were slightly more likely to have a negative overall perception of government than they were to have a positive one. This did not appear to have an effect on their perception of government websites, however, as the vast majority of participants had positive overall perceptions of e-government. Nevertheless, several key themes regarding government information reoccurred throughout the data, which will be explored in future chapters. In addition, chapter five will offer a deeper look at select participants, bringing together the definitions, evaluations, and knowledge all explored above.



## **CHAPTER 5: CASE STUDIES**

Chapter five takes a different approach to data analysis by viewing select participants' data as individual units rather than in aggregate. There are several reasons for viewing the data in both ways. While chapter four gave a big picture overview of the trends in this particular participant group, nuances of the data are lost. As was briefly mentioned, contradictions were a major theme of many participants' perceptions. It is far easier to see the subtle ways that opinions differed across data collection activities when looking at an individual participant's responses. Viewing the participants as

individuals also allows for a more robust examination of the potential influences that have shaped their opinions and perceptions.

This type of analysis where profiles are drawn on individual participants within larger studies is common in the fields of learning science and identity studies (see Barron, 2010 and Ito et al, 2009 for examples of this type of research). While this dissertation does not fit into these fields, the exploration of a participant's data in order to see how his or her demographics, family influence, literacy skills, self-efficacy, and prior beliefs combine to form a perception of government and government websites mirrors the intent of identity work. These profiles give us not only a better understanding of these individual participants, but also of how the same influences might interact in other young people forming their political and information perceptions.

The five participants highlighted below demonstrate the range of attitudes across the study's population. The first two highlighted are Percy Potter (AA) and Kira (DD). These participants generally had positive views of both government and government websites. Natsu Dragniel (BB) demonstrates a more neutral position, although he did have much to say about government and e-government. However, he lacks the vehemence of the participants with negative perceptions and also does not show the optimism of the participants with largely positive perceptions. The two participants with negative perceptions are Mr. Paste (CC) and JazzyJay (BB).

For each participant, a profile is drawn from their demographic data recorded in the survey, from observations made throughout the program, and through

comments made during interviews and word associations. Then, general sketches of both the participant's opinion of government and government websites are presented.

### PERCY POTTER: THE BELIEVER

“I USUALLY ASK OTHER PEOPLE FOR STUFF.”

Percy Potter is a fifth grade boy at School AA. He self-describes as Asian. He lives with his mom and dad, but is unsure of what his parents do for work. When he grows up, he wants to be a scientist or an architect. He does not own a cell phone, but does have access to one working computer at home that can access the Internet. He has used a mobile device to access the Internet as well. On his survey, he rates himself as pretty good at using the Internet. In an interview, he mentioned that he is “pretty confident” that he can find the information he is looking for because he “usually ask[s] other people for stuff.” He also noted that he uses the Internet a lot.

Percy has a generally positive outlook on America, strongly agreeing with the statements that people get fair treatment in America, no matter who they are, and that in American a person has an equal chance no matter where he or she come from what his or race is. He did mention that he is uncertain of whether most people can be trusted, but seemed conflicted on this answer as he initially answered that he agreed and changed his answer after some contemplation.

“IF SOMETHING’S WRONG, THEY TRY TO MAKE IT FAIR.”

Percy's strategy for establishing the credibility of information strongly relies on authority figures. He said that he “gather[s] the information. Then...check[s] if the information is right,” when asked how he does this, he replied that he “ask[s] other

people, like teachers or people who know more about that” (WAR). He also strongly disagrees with the idea that elected officials cannot be trusted, further displaying a belief in authority.

Percy’s perception of the government aligns with this position on authority. He stated during the word association activity that “The government helps the country” and that “The government, if something's wrong, they try to make it fair.” He also listed the words “order,” “peace,” “leadership,” and “protection” to describe government. When asked if he trusted government, he did indicate some wariness: “Yes because they help us when we're in need, like sometimes when we're in war they would help us. And no because if we do something wrong ...and we didn't really do it, somebody else did, and the police or whatever is going against us.” This concern was a minor part of his assessment however. Along with the positive connections he made during the word association, on his survey, Percy indicated that he strongly agrees with the statement “government really cares what people like my family and me think.” He also defined government “as laws and fairness.”

“THE GOVERNMENT WOULDN’T JUST PUT SOME RANDOM THINGS ON [A WEBSITE]” Although Percy Potter had never visited government websites, he generally had a positive perception of them. As with government, he indicated both positive and negative qualities, saying that he thinks “they're bad because if you do one little thing the government might be suspicious on you...” but also noted that “dot com, they're usually for websites that you can make on your own, but dot orgs and dot gov are usually...more protected” (WA). He also made mention of this protection in his interview; when asked what he thought a dot gov site is, he said “I think it's a

government site, and it's a protected site, so people can't just hack into [it] really easily.”

Despite his inexperience with the websites, he correctly named healthcare.gov as an example on his survey. He also liked alzheimers.gov for its content and for the fact that it is dot gov which he noted “usually means it’s true.” In his interview, he asserted that dot gov sites “usually have better information and it's usually not wrong.” When asked why he thinks that, he said “Because I think the government wouldn't just put some random things on [a website].”

#### PERCY POTTER’S PERCEPTIONS

Overall, Percy Potter has a positive opinion of both government and e-government. He values both government and government websites for their protection and safety. The fact that he has not used a dot gov website is likely due to his young age, as he is a user primed to appreciate both the content and source of a government website.

#### KIRA: THE SKEPTIC

“FBI...THE AWESOME PART OF THE GOVERNMENT”

Kira is a seventh grade female who attends School DD. She self-describes as Hispanic or Latino and lives with her mom and dad, as well as her three siblings. Her parents are from Mexico and she speaks Spanish at home. When she grows up, Kira would like to be a surgeon or a criminal investigator, specifically mentioning she would like to work for the FBI. In a conversation about the government, Kira said she

thinks the FBI is “the awesome part of the government. I want to be a criminal investigator or researcher. Or a lawyer.”

She owns a cell phone and has access to three computers at her home. She has used a mobile device to access the Internet and says that she always accesses the Internet from a phone or tablet and often from a laptop. She only sometimes uses a desktop computer. She rates herself as pretty good at using the Internet. A researcher recalled that Kira “specified that she looks for the more reliable sources on the Internet. I asked her how she can tell and she said that she sees if the information looks accurate and she compares the information across multiple sites to see if it matches” (RTON).

Kira does not believe most people can be trusted. When a researcher asked her about this, she “said she has a trust issue” (RTON). She was uncertain about whether people have an equal chance in America regardless of where they come from or their race, as well as whether the government really cares what people like her family and she thinks. She agreed, however, with the idea that people get fair treatment in America, no matter who they are.

“I’D PREFER TO KNOW. AT LEAST I’D KNOW WHAT’S GOING TO COME TO US.”

Kira has generally positive things to say about the government, but does have some qualms about the secrets they keep. When asked to list words she associates with government, Kira mentioned: taxes, the FBI, and CIA Area 51. When asked about her mention of Area 51, she described it as “the place that everybody wonders about but government never tells” and recalled that she “saw it on Discovery Channel, a documentary about it. How about at first, it used to be small, but they grew it bigger

and much people they have around it and what they might be hiding.” She believes they are hiding “Aliens. Or the zombie epidemic. The sickness. They probably have it already in the world. Just that they're hiding it from us.” A researcher then asked if she thinks the government hides a lot of stuff and Kira replied “Yes. Why would they not allow us to see Area 51? Why wouldn't they allow us to know about it?” She said she thinks keeping information from people is both “good and bad. Good because it could keep the citizens from freaking out from all the secrets they might hide that might be really major and bad because they're keeping us in the dark.” Ultimately, however, she would “prefer to know. At least I'd know what's going to come to us.”

Despite this possible issue of trust, she generally views the government positively. She defines government in her survey as “the people who give us laws, order, and make sure we are in line and pay taxes.” She also indicated that she disagrees that elected officials cannot be trusted. When asked what health-related things the government does are, she said they “make sure our society doesn't collapse” (WA). She also thought the government responded to the Ebola outbreak of 2014 “pretty well...as you can see in the news, there's not a lot [of] cases of it [anymore]” (WA). Overall, “she said she feels okay, but not too comfortable, about the government” (RTON).

“ORGANIZATION OR GOVERNMENT WEBSITES ONLY.”

As with the government, Kira has a measured opinion of government websites. She had not used a dot gov site and in her interview indicated that she had not heard of them. Through other conversations, however, she did seem to have some idea of what they are. During the word association activity, Kira identified dot gov

sites as “government owned websites.” In the same discussion, she said a person might go to a government website “If [they] want to learn more about the government. Or [what] they own,” such as “the Board of Education and...health, they own almost everything.” She also recommended dot gov websites in the health literacy assessment because they are “more accurate.” Similarly, when a researcher asked what a good URL is versus a bad URL, she said “a good one is from the government or organization, while company isn't as good because chances are they're trying to sell you something” (WAR).

She did not completely trust dot gov sites, however. She mentioned that “the government might just put information they want us to know and not the whole piece” (PS). She also noted that she thought alzheimers.gov had “too many opinions,” such as the words “the burden.” She also indicated that even if a site was a dot gov site, if it was last updated in 2012, it “wouldn't be good” (PS). That said, in a list she developed as her own personal credibility assessment guidelines, she indicated that she would like to go to only organization or government websites (RTON).

#### KIRA'S PERCEPTIONS

Kira has a positive view of both government and e-government, but is more measured in her assessments than Percy Potter. She acknowledges the government hides information, but that does not affect her belief that dot gov sites (along with dot org) sites have the most credible information.

#### NATSU DRAGNIEL, THE UNDECIDED

“I DON'T LIKE TO SOUND STUPID.”



Natsu Dragniel is an eighth grade male from School BB. His self-described race is “swag,” and lives with his mom, dad, and a grandparent. His parents are from Peru and Puerto Rico, and at home, he speaks English and Spanish. His father is a policeman and his mother is an EMT. Both graduated from college. When he grows up, he would like to go into the army and/or be a gamer. He owns a cell phone and has used a mobile device to access the Internet. He has access to more than four computers at his home and uses his phone “every day.”

Natsu rates himself as very good at using the Internet. He explained in his interview that he uses skills his school media specialist taught him to check a website’s author’s credentials. He also knows that “if it’s safe to put money on, they have like the little http and the lock on it.” He is confident that he can find the information he is looking for, but is “always worried about if it’s false information, because...I don’t like to sound stupid, so I don’t want to talk to someone who actually knows the thing that I’m talking about, like if I’m talking to a doctor about cancer... say cancer only appears in the foot or something. Because then you just look like an idiot.” Although he says that the majority of time he uses the Internet, he just watches shows, when he does search for information, he gets help from his parents or his grandma, who was an educator. She helps him “figure out what’s legitimate, what’s not.”

“I DON’T LIKE TO DISAPPOINT ANYBODY...”

Natsu is conflicted about government. He has family that support and detract from the institution, which makes him question who to believe. As he says in his interview, “my uncle... ever since I was small, he’s always put these things in my head about the

government...He's in the military. And almost everybody in my family's been in the military... they put these ideas in my head, like the military- like the government's like gone bad, and things have just gone just down the drain.” Then, however, he mentions that when he goes to his mother “she's like the government's good. So then I don't really know what to believe.” Natsu went on to say:

“I don't like to disappoint anybody, so I don't want to be like the government's bad in front of my mom, cause then I think she might feel sad, and then I don't want to be like the government's good in front of my father's side of the family, because they're all, everybody, actually on both sides of my family, they've all been in the military, every last one of them.

Then, a researcher asked that if she posed the question ‘how do you feel about the government,’ would he know how he felt? He replied that he would not.

He does express some opinions on government throughout other data collection activities. On his survey, Natsu defines the government as “somewhat untrustable.” He identified a government agency as the FBI and added that they “go to find people.” He disagreed that the government cared what people like him and his family think and agreed with the fact that elected officials cannot be trusted. In his word association, Natsu listed words such as “favoritism,” “false information,” “war,” and “killers” and explained that, when he wrote killers, he meant “they're not doing anything to help out around. There's more homeless people, for every homeless person in the U.S., they have around 6 houses. If they were to actually help them...” He also offered additional incidents where he disagreed with the government's

actions, such as “War. Like they fund wars...and they will get into other countries business.” He also noted that “We're like billions of dollars in debt to China...”

All that said, he seemed to take the idea of government conspiracies less seriously than some of his peers. When a fellow participant was asserting that Area 51 is real during the word association activity, Natsu joked that “they've got a big old egg in there or something. Next thing you know Godzilla pops out and we're like we knew it.” When a peer said that government might not be more honest about diseases or conditions, Natsu explained that maybe “they don't want to cause a panic.” When a fellow participant was exclaiming negatively that police officers are shooting “us,” Natsu reminded her that police are “[there] to uphold the peace, but some of them are just bad” and that she “can't really blame all of the police...” (WAR).

These conflicted opinions are apparent in his general attitude toward America and his social trust as well. He strongly disagrees that people get fair treatment in America, no matter who they are and that in America, you have an equal chance no matter where you come from or your race. He strongly agrees, however, that most people can be trusted.

“IT'S LIKE WATCHING HUNTER/EX-HUNTER WHEN YOU FIGURE OUT THE PASSWORD.”

Natsu does not have many feelings one way or the other about e-government, which he explains is due to the fact that he has never been to a government site. The perception that he does have is similar to his opinion of government – conflicted. In his word association, he lists that government websites are “safe” and “secure,” but also that they are “misleading, take a long time, [and] secretive,” words that were also

listed by the participants with whom he was sitting. His one experience with government sites was with his father:

Well my dad works for the police and he went to a government website and he typed in his username and password and everything just changed and told me to go away. So secretive. It's like watching hunter/ex-hunter when you figure out the password.

Overall however, a researcher recalled that he felt that government sites “would be trustworthy because the government is the ‘top dog of the U.S.’” (RTON).

#### NATSU DRAGNIEL’S PERCEPTIONS

Natsu Dragniel has a positive opinion of government websites, but a negative opinion of government. That said, the latter is clearly influenced by his family and peers. He is a user who very well might be influenced by positive experiences with government information.

#### MR. PASTE, THE “HATER”

“I’M SO CONFIDENT THAT I BLOW PEOPLE’S MINDS AWAY.”

Mr. Paste is a seventh grade male who attends CC middle school. He lives with his Aunt, self-describes as Caribbean, and would like to be a journalist or an author when he grows up. On his survey, Mr. Paste wrote that he disagreed that in America, people have an equal chance no matter where they come from or their race, as well as with the statement “Basically, people get fair treatment in American, no matter who they are.” He was uncertain about whether most people can be trusted.

He owns a cell phone, but does not have any working computers in his home. He does use a cell phone to access the Internet at home. He describes some ways he checks to see if information on the Internet is credible, like using “people's reviews... look[ing] up the person who made the website...if you find something that's on one website...then go[ing] and look[ing] for it on another...” Indeed, he rates himself as very good at using the Internet and in an interview noted that he feels very comfortable with online search. In fact, he says “that's all I do when I'm at home, I'm always on my phone,” and even said he fell down his stairs a couple times, as he was on his phone and walking without looking. He says that when he got up he was in pain, but “still continued to text.”

He is extremely confident that he can find the information for which he is searching; “I'm so confident...it's just habit, I'm always confident, sometimes I don't have it, but most of the time I do...I'm so confident that I blow people's minds away.” In his free time, he writes and reads fanfiction on WattPad, which he discovered when “this random thing popped up. I was like hmm what's this, read free books, write free books, get followers, and stuff like that, so I clicked on it and then, there was this one book, it just blew my mind.” His own writing has many followers; “I have one book, I have two point seventy-two k readers, and a hundred and twenty-seven likes, eighty-three comments, and the other book I have...it just got to the k's,” though he does mention that the books that were not as successful he deleted. From his descriptions of his hobbies and his self-assessment of his Internet skill, Mr. Paste is obviously someone who spends a lot of time online.

“I DON'T USE THE WORD HATE A LOT, BUT I HATE THEM”

Mr. Paste is not a fan of government. In fact, he goes so far to say in an interview that, while he does not use the word a lot, he “hate[s] them.” His definition of government on the survey goes even further; he describes the government as “lying douchebags who take our money for their own pleasure.” He seems to have at least basic knowledge of government, answering that “A government agency is like FBI or something related to that.” That said, on the whole, Mr. Paste thinks government is “secretive,” that “they're so mean,” and that “they withhold information from us that could really help us” which results in them “killing people just to get rid of them because they're afraid that they can't survive.”

He says that the government is “just like the President [Obama],” and elaborates that “he’s crazy.” This opinion presumably stems from something his aunt told him either when he was first elected or last year that, in DC, people’s “insurance cards weren't going to be able to be used because they started like putting chips inside of people's arms like right there and they scan it.” It is not clear to what policy he is referring, but it is entirely possible this is a conspiracy theory, as he is a big believer of such stories. He describes several theories that he got from TV:

Yeah like they [the government] have secret societies, they have aliens but they don't want to tell us, they're making alliances... and late night on Saturdays...I think it was CW...It's telling about aliens...and the Egyptian Pyramids. They were telling one about how the Egyptian Pyramids, they had to be from outer space to see how to build it, and people on the ground couldn't know how to build it, it would've been like tilted or something like that, but it's like really, you can like see the top from outer space and it's like

shiny, yeah, so like there's aliens. And then there's this one, the government is like hiding people, people...caught by aliens and then...people who are turning up with like these chips in their heads and arms, and I was like this is crazy. And then like, I remember once I thought I had this stuff in my arm and I was like mom, I've been abducted by aliens, and she thought I was crazy. It was really funny though.

When asked who the people are who are telling these stories, he answered that they are “people who've been” and “alien experts.” Clearly Mr. Paste believes that the government is so secretive based at least partially on these accounts. His negative perception of government is shaped strongly by the media he uses.

DOT GOV? “WHAT IS THAT?”

Interestingly, Mr. Paste does not have such strong feelings about government websites. Part of this disconnect may come from his uncertainty about what they are.

When asked if he had ever used a site ending with dot gov, he asked “What is that?”

When a peer reminded him, he gave examples of sites he had been to:

Oh yeah yeah, there's like this hospital thing, sometimes when cause the hospital will like give out papers to learn about new diseases or flus or viruses going around, and they always have like dot gov at the end. Like I remember one time I went to PBSkids and there's like this one website that takes you to this other website, it's like {LearnIn?} and it's dot gov

When asked what he thought about these (mostly non-governmental websites), he replied that the PBS Kids site was confusing. This was also how he generally thought of dot gov sites in general, but it was unclear whether he was referring to government

websites generally or dot org sites that he thought were government websites (such as PBS Kids). He did seem to come around to the definition eventually, as later in the interview, he explained that he “think[s] what it means by dot gov, cause it's a part of the government, so it's knowledge from the government, and it's given to you.”

“YOU [WWW.ALZHEIMERS.GOV] HELP A LOT. YOU DO NOT HAVE A LOT OF INFO.”

His feelings on the usefulness of government websites also seemed somewhat muddled. In his survey, Mr. Paste wrote that a dot gov website is a place with information vital to us. During the poster screenshot activity, he described alzheimers.gov as helping “because it's dot gov. [It] links to different parts, it says find out more, what is alzheimer's disease...” and also wrote that the site “help[s] a lot.” He also wrote, however, that the site “do[es] not have a lot of info,” which does not seem to agree with the other assessments he made.

#### MR. PASTE’S PERCEPTIONS

Mr. Paste expressed an extremely negative view of government, but surprisingly had a positive view of e-government. It is very likely that the latter is actually due to the lack of knowledge he has of government websites. It is not clear that he actually connects the two with each other. Regardless of his view of government websites, he has a negative perception of government information in general, as he believes the government is withholding information from the public.

#### JAZZYJAY: THE DOUBTER

“I’M NOT TRYING TO DO PLAGIARISM ALL WRONG.”



Jazzy Jay is an eighth-grade female who describes herself as mixed race. She attends School BB and lives with her father. She speaks both Spanish and English at home. Her father works in “patent/trademarks” and her mother is a manager. JazzyJay has many family members who work for the government, including her father, her grandmother, her aunt, and more than one uncle. She herself has a variety of career interests, listing in her survey that she would like to be a lawyer and a photographer, as well as to work in sports medicine.

She owns a cell phone and has more than four computers in her home. She uses mobile devices to access the Internet, although she does not use tablets. She rates herself as very good at using the Internet. She has a lengthy process she uses to check the credibility of online information:

I would open up a whole bunch of windows, like 5 different ones. --- I would open that, I would read them and I would have Microsoft Word open and type stuff in that I think are the similarities and differences and what the articles and whatever one has more similarities, I would probably choose that one.

Compare and contrast. (CS)

When the researcher noted that that was a lot of work, JazzyJay simply replied that she is “not trying to do that plagiarism all wrong.”

“YOU’RE KIND OF A GOVERNMENT ACTIVIST, AREN’T YOU?”

JazzyJay is passionate in her dislike of the government. She defined the government in her survey as not caring “about the economy or us and they steal our taxes to give to other countries.” In answer to whether she agrees or disagrees with the statement “government really cares what people like my family and me think,” she exclaimed

“No they don't! Strongly disagree! A hundred times. A hundred times a hundred” and asked if she could say “strongly disagree times a hundred” before counting out zeroes to list on the page. A fellow participant asked at one point “You're kind of a government activist aren't you?” Her answer was an implicit yes, replying “Even though my dad works for the government and so does my grandma. And my aunt. And my uncles” (WA). At one point, JazzyJay noted she believed that the government’s “whole general thing is to steal our stuff and don't even give a crap about us.” Her school librarian tried to emphasize that “the government” is not one person and that this is a system the people voted for and created. JazzyJay responded that she “didn't vote for it because [she’s] not of age yet” (WAR).

JazzyJay has many reasons she expressed for these strong feelings. She does not “think they care about our well-being. Because if they did they wouldn't have police officers shooting us” (WA). When fellow participants replied that not all police officers are bad, she argued that “the government's not doing anything about it! You hear about these policemen raping these girls at a young freakin age. If you listen to the news...” (WA). Other participants noted that they did not hear of such accounts Jazzy Jay said that she “listen(s) to the radio and they get away [with] it. They don't get in trouble for it” (WA). JazzyJay later said that she wants to be a lawyer to change such practices. She also listed “killers” in her word association list for government and explained that she was referring to “how police, like not for racial standpoint, but how they're killing, but not even giving them a chance to explain themselves and all that stuff.

Some of JazzyJay's dislike appears to come from a lack of knowledge of the duties of certain officials. She described President Obama as "a puppet" and supported the statement with the fact that he doesn't "even write his own speeches." When her school librarian attempted to explain that this is not something for which any modern president is responsible, she replied:

No but in my opinion - everyone has their own opinion...I think he is a puppet, because even though you're having the issues, but you say you care about the people, you should have enough time or something to at least write the speeches to say to the people, instead of having someone else say their own opinion...If you really care about the people...then you would take the time to write your own speeches not have someone else like your secretary or vice president write their speeches for you (WAR).

She also found fault with social policy, referring negatively to the fact that "we have all these houses that are empty, there are like 50,000 of them and they're all empty, but they have high prices, no one can really even buy them...[the] homeless are actually trying to do something, but you won't give them a house" (WA).

Aside from political issues, when asked what she thinks about when she hears the word government, JazzyJay replied "false information" (I). She believes strongly in certain conspiracy theories, including that Area 51 is being used to hide something from the American public, "Because say if you're trying to search on aliens, but it takes you to a government site, and they say oh they are not real. But you know they are real" (WA). She believes that they are real because why else "would [they] have a full guarded fence around one area?" (WA)

JazzyJay's lack of trust extends to people in general. From her survey responses, she strongly disagreed with the idea that most people can be trusted. She also strongly disagreed that people get fair treatment in America, no matter who they are. Interestingly, she was uncertain about whether elected officials could be trusted and whether in American, people have an equal chance no matter where they come from or what race they are.

“I TRUST THE GOVERNMENT SOMETIMES.”

JazzyJay, despite her strong feelings against the government in general, does demonstrate some trust. She chose dot gov websites (along with dot org and .edu sites) to recommend “because the websites seem more accurate” (HLAT). She also described an instance when she “had to do research on one of [her] parents” and that “since [her] dad's a part of the government, trademark thing,...[she] picked that.” They went on the website for her father's job and she said it “showed what his job is mainly about and all that stuff” (I). She also told a researcher that she “trusts the government sometimes” (RTON). She noted that they “can give us true and false information” and that they do probably want Americans to be healthy (unless, of course, they want to decrease the population) (RTON).

There were also more negative comments she made. For example, she listed in her word association for dot gov: “People Who Think That They Are In Charge Of Everything,” “False information that they give,” and “They take our taxes to give money to other nations,” suggesting that she does indeed link dot gov websites with her feelings about government. Evidence also suggests that she does not have much experience with dot gov sites. She did not give a definition or example of a

government website on her survey and, when asked who in the government she thought created alzheimers.gov, she simply replied “an old person” (PS).

#### JAZZYJAY’S PERCEPTIONS

Jazzy has a negative perception of both government and e-government. Her dislike of e-government is strongly connected to her negative perception of government, including her belief that the government is hiding things from the public and does not care about its citizens. It is unclear on whether use of government websites would change her mind or not.

#### SUMMARY OF CASES

These young people offer both doubt and support for the government. Seeing the details of their lives, such as their race/ethnicity, parental and familial influences, strongly held beliefs, and desired futures, adds additional layers to their perceptions of government and government websites. Far from being apathetic to current events and controversies, these participants use these to inform their views on civil institutions. Thus, it is critical to take their views and concerns seriously when recommending sources of information and helping them to critically examine their opinions.

It is important to note that these participants were not selected to act as representatives of their respective perceptions. If anything, these cases demonstrate how unique each participant’s views and opinions are. From media, to family, to experience, there are a variety of influences shaping these youths’ views. These

influences and the themes that have emerged in both the aggregate view of the data and in these particular participants will be discussed in the next chapter.

## **CHAPTER 6: DISCUSSION**

Chapters four and five focused on the respondents' direct discussion of government and government websites, with the former looking at the study participants in aggregate and the latter focusing on individual cases. This chapter compares the findings outlined in previous chapters to prior research, sheds light on the contributions of the study's findings to these research areas, and offers recommendations for both research and practice based upon the implications of what has been learned.

## COMPARISONS TO PRIOR RESEARCH

### YOUTH PERCEPTIONS OF GOVERNMENT

This study's participants evaluated the government using many similar measures as adults have demonstrated in prior studies of trust and government (Hetherington, 1998). While the participants did occasionally evaluate the President and institutions, opinions most commonly seemed to stem from participants' views of policies and from the type of media to which they had been exposed. These particular foci of the participants seem to connect with prior findings in political socialization research that current events and periods of society upheaval can influence political development (Jennings, Stoker, & Bowers, 1999; Sears & Valentino, 1997). The general state of society was an obvious underlying element to participants' evaluations. Agent Chicken Wing (CC-ON), for example, does not like the news because it scares her; they constantly talk about ISIS - "beheaded this...beheaded that." Sweet Hershey Kiss (CC) brought up issues of racial profiling by the police during her interview:

I mean with the Michael Ferguson, with the Michael Brown thing, it's not fair how they're making assumptions, I mean, I just want everything to come together as one, not just saying oh the white man was picking on the black man, or the black boy deserved it, I mean, it's just all about equality and fairness.

The participants' general lack of trust also echoes prior research. A recent study using data from two national studies found that trust "was at an all-time low in 2012 among 12th graders. For example, 32% of 12th graders in 1976–1978 agreed that 'most

people can be trusted,’ but this figure sunk to 18% in 2010–2012” (Twenge, Campbell, & Carter, 2014, p. 1918). These 12<sup>th</sup>-graders also showed marked decreases in confidence in institutions; for example, their opinions on how good of job large corporations were doing sunk significantly between 2000-2002 and 2010-2012, from 54% rating them “good” or “very good in the early 2000s,” to 33% just a decade later. The authors suggest these numbers may be due to economic inequality or rising crime rates, the latter of which was noted by this study’s participants obliquely during data collection (e.g. JazzyJay’s comments on the police).

This is not a longitudinal study so we cannot know whether these events – the terrorism caused by ISIS in the Middle East and the many prominent instances of police brutality during confrontations with young African-Americans – or this general distrust will continue to impact the participants over the course of their political lives. What we can assume is that the events are shaping the way that these youth currently search for and view information. There may or may not be implications on long-term behavior, but there are certainly implications on their current information-seeking actions and attitudes, both issues of direct relevance to educators and policy-makers attempting to reach young people. Thus, understanding young people’s political concerns informs how we should approach their development of information, digital, and civic literacy skills.

#### YOUTH INFORMATION-SEEKING BEHAVIOR

The aspects of government websites on which participants based their assessments matched with past research into youth information-seeking behavior. These youth mentioned such factors as aesthetics (as has also been noted in Agosto, 2002a, 2002b;



Fergie et al., 2013; Fidel et al., 1999; Gasser et al., 2012; Sundar, 2008). They also described government websites positively because of their large amounts of information (echoing findings of Hirsh, 1999; Agosto, 2002b).

Participants also displayed both facets of source credibility assessment, institutional and individual. As defined by Rieh and Belkin (1998), these include the URL and the institution (e.g. a government site) versus the familiarity of the author of the site and/or the amount of information available about the author. This study's participants were far more likely to note the URL or the institution, but some did mention the expertise of the people writing the content (even though they were occasionally off-base as to who these people are). Other credibility-related evaluations were made about the inclusion of certain information on the site, such as a date, as well as the inclusion of media, such as a YouTube video. The limited observations available for these participants' use of e-government revealed more interest in the use of words associated with the participant's search terms than in the source of the information, a finding previously identified by Subramaniam et al. (2015b). All of these behaviors should be considered when designing government websites and teaching digital literacy skills.

#### PARTICIPANT'S PERCEPTIONS OF E-GOVERNMENT

While there is little research available with which to compare this study's findings on youth views of e-government, the studies available on adults do share some similarities with the data. For example, Dimitrova and Chen (2006) surveyed 447 online Americans (in a sample comparable to Pew national telephone survey data) and found that there was a relationship between perceived usefulness of e-

government and subsequent use of e-government. Similarly, their findings suggested that “nonadopters generally believe governmental web sites do not offer anything relevant for them” (p. 185). They also found that security and privacy were concerns of some respondents. Carter & Bélanger (2005) found that perceived ease of use is a predictor of future use of e-government services.

Participants in this dissertation demonstrated all of these findings, questioning the usefulness of government websites for health research, indicating ease of use as a positive evaluation of government, and mentioning privacy and security when questioned about their intentions to use government websites (although in the latter case, most participants found the relative security of government websites as a positive reason to access the government sites.) The similarities suggest that there may be opportunities to reach both adults and young people by using the same strategies of promoting government websites, as well as with similar improvements to the content, design, and features of online government information.

## CONTRIBUTIONS TO RESEARCH

### YOUTH INFORMATION BEHAVIOR AND INFORMATION ACCESS

One particularly interesting finding to come out of this study is the fact that so many of the participants based their evaluations of government and e-government on policies, whether general or specific. Perhaps more interesting was the importance of information-related policies; the findings showed clear connections between both negative and positive perceptions of government and perceptions of information-

related policy. Commonly mentioned issues (described in chapter four) included government surveillance, government secrecy, and the dangers of hacking.

Participants' negative views of the government's tendency toward secrecy were not terribly surprising given prior research; a national survey's finding that young people perceive that "Snowden's revelations served the public interest" is just one example of this (Levitsky, 2014). What was novel was the fact that many of the participants cited the security of government websites as a positive association they had. For example, three of the boys at school AA brought up the Sony hacking case to positively compare the safety of government websites to the lack of security in commercial software. This is striking, as research would suggest young people generally trust corporations' management of their data (Levitsky, 2014). Batman's experience, however, told a different story:

... since I'm a Sony fan and I have a PS3 and a PSVita, I couldn't play online, so I wanted to play with my friends, and some of my friends at my school, you know? And...that basically collects in my mind, why would a person do that and you know they got, even though you're a computer engineer, you don't have to hack into another person's software. And that's a worldwide company.

It has a whole lot of people.

This suggests that there may be ways to leverage participants' desire for a safe environment to search.

Despite the lack of surprise over participants' wariness of surveillance, and government secrecy, these issues do represent potential social access barriers to government information. Of course, potential impacts will likely be incremental, but

there is a real possibility that information-related issues could lead to political alienation if youth choose to avoid online government information rather than risk negative exposure by accessing websites or other sources.

Also of potential detriment to young people's access to information are intellectual barriers they face due to their lack of government and e-government knowledge. As far as political knowledge goes, these young people most acutely lacked awareness of the structure of government, particularly with regard to who in the government is responsible for information dissemination to the public. Generally, participants were not very aware of government resources online. Common confusion occurred over the source of content, the variety of content (i.e. whether sites were just about politics and government or if they also spoke on other topics), and how to distinguish government resources from other online material. This could reflect the participants' lack of knowledge of government in general, as low domain knowledge has been found to be a barrier to searching online information (Hirsh, 2004). Not knowing details about the structure of government (e.g. government agency names; government's role in funding scientific research and hosting information about such topics online) is a hindrance to understanding the breadth and usefulness of government resources. As a particularly striking quote from Dr. Golden Man (BB-CS) shows, youth often are not aware of what kind of resources are available from the government; "I don't really think a government website would be on the Internet. Because what are they going to do, buy a tank?" While this is an extreme example, the confusion over the purpose of government websites came up more than once.

## CONNECTION BETWEEN PARTICIPANTS' GOVERNMENT AND E-GOVERNMENT PERCEPTIONS

In aggregate, the participants' general opinions of government and their opinions on government websites differed greatly. While over half of the participants had negative perceptions of government, this did not translate into an equal number of negative perceptions of government websites. Interestingly, there were also more neutral views of government than of government websites, which either may show conflicted feelings about government or may be a sign that these participants simply are not that interested in government either way.

This study also shows no clear connection between young people's perceptions of government websites and their perceptions of government. While participants who had positive perceptions of government unanimously had positive perceptions of government websites, this is not enough to suggest that a connection between the two exists. Many participants who expressed a negative opinion of government conversely had a positive view of government websites. This dichotomy, which echoes the contradictions that individual participants expressed when giving their opinions of government and government websites, likely reflects the participants' gaps in civic and information literacies.

One indication that there may be more to explore in researching the impact of government opinions on perceptions of government websites are participants' frequent mentions of the source of the content on government websites as reasons to both positively and negatively assess online government information. This trend suggests that there may be more impact than is seen at first glance.

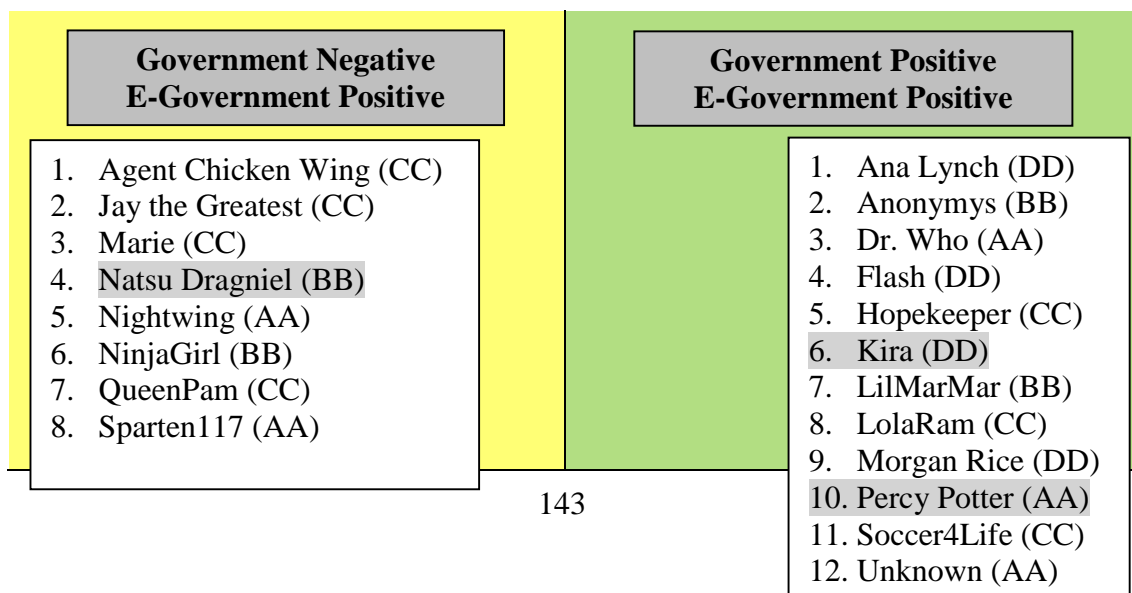
Table 6.1 demonstrates the wide range of positive and negative statements made by participants. The rows for Perception of Government and Perception of E-Government are color-coded according to dominant position – red for more negative than positive statements, green for more positive statements than negative, yellow for neutral (an equal number of positive and negative statements), and purple for not enough data (no evaluative statements were made by the participant). The participant column is color-coded only if the government and e-government positions are the same. In the cases where they differ, the participant cell is left without color. (The number of statements each participant made regarding government and e-government including neutral statements is included in chapter three.)

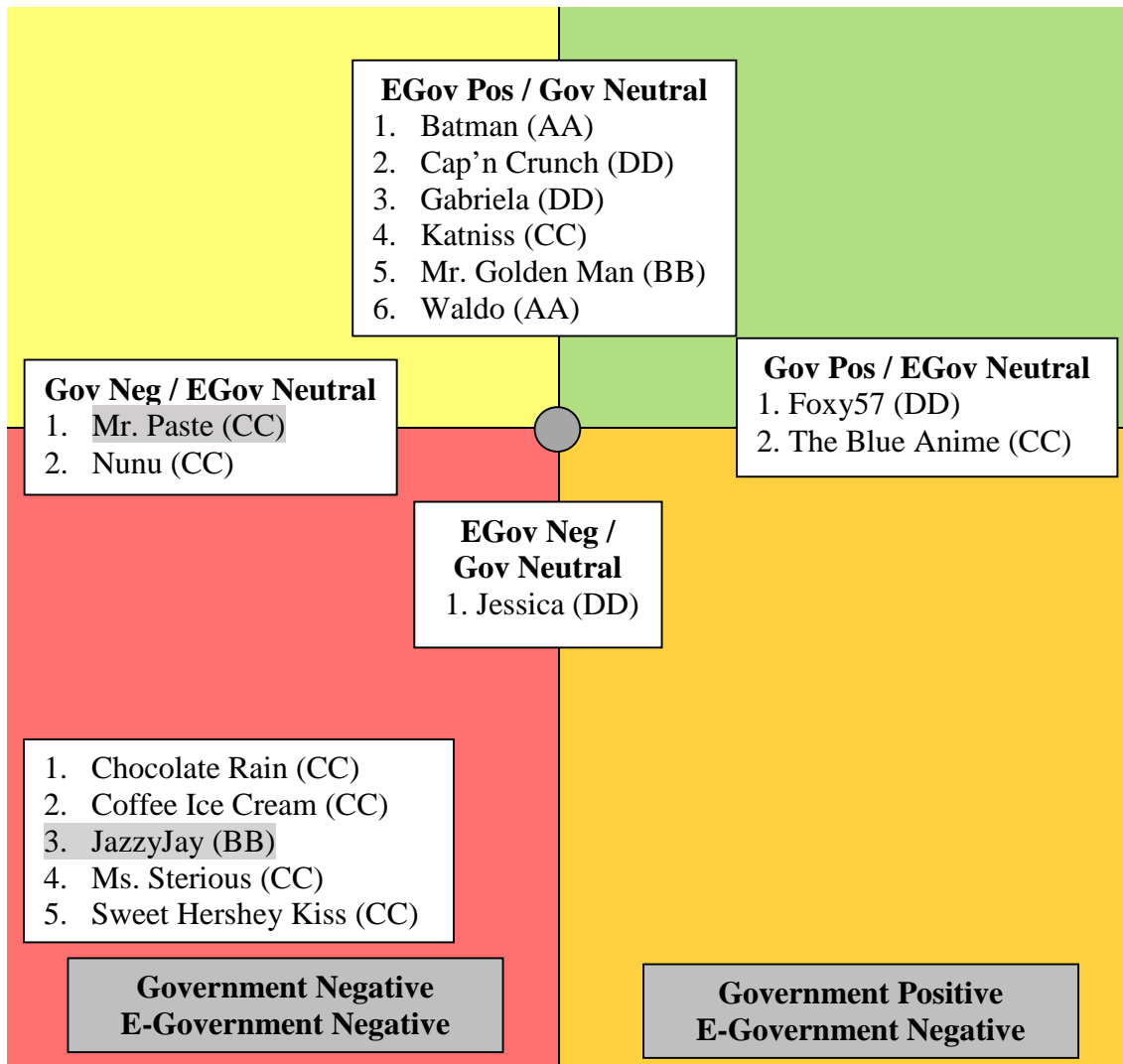
*Table 6.1: Participants' Evaluation Frequencies: Positive, Negative, & Neutral*

Participant	Perception of E-Government		Perception of Government	
	# of Positive Statements	# of Negative Statements	# of Positive Statements	# of Negative Statements
Agent Chicken Wing	9	4	5	7
Ana Lynch	6	0	6	0
Anonymys	9	5	3	1
Batman	3	1	3	3
Cap'n Crunch	3	0	1	1
Chocolate Rain	0	1	0	3
Coffee Ice Cream	0	4	2	3
Dr. Who	6	1	3	0
Flash	1	0	3	3
Foxy 57	0	0	3	0
Gabriela	2	1	0	0
Hopekeeper	9	0	6	0
Jay the Greatest	2	0	0	1
Jazzy Jay	1	4	0	13
Jessica	0	1	0	0
Katniss	6	3	0	0
Kira	3	1	3	1
LilMarMar	6	1	1	0
LolaRam	9	0	2	1

Marie	5	3	0	2
Morgan Rice	3	0	7	0
Mr. Golden Man	2	0	0	0
Mr. Paste	3	2	0	6
Ms. Sterious	0	1	1	2
Natsu Dragniel	4	2	0	8
Nightwing	4	0	1	2
NinjaGirl	2	1	0	1
Nunu	0	0	0	1
Percy Potter	6	1	9	1
Queen Pam	2	0	0	2
Soccer4Life	3	1	3	5
Sparten117	4	0	2	3
SuperSweet	0	0	0	0
Sweet Hershey Kiss	1	3	3	5
The Blue Anime	0	0	3	0
Unknown	3	0	4	2
Waldo	2	0	1	1

Figure 6.1 displays the above table graphically, representing the various combinations of perceptions of government and e-government in four quadrants. The x-axis represents the participants' perceptions of government, while the y-axis represents the participants' perceptions of e-government. Those with neutral perceptions or who did not have enough data are situated on top of the relevant axis.





*Figure 6.1: Overall Perception of Government and Government Websites*  
 Overall what these data show is that the underlying opinions, influences, knowledge, and personalities of participants may have more bearing on opinions of both government and e-government than simply the influence of a perception of one (government or e-government) on the other.

### RECOMMENDATIONS AND IMPLICATIONS FOR PRACTICE

This study has shown that while perceptions of government websites do not seem to directly influence perceptions of government, perceptions of government may have



some effect on participants' views of government websites. This was seen in individual statements for the most part, particularly when participants noted the influence that the source of the government websites had on their evaluation of the site. What was also clear was the much higher percentage of participants who viewed e-government favorably than who viewed government positively.

For government officials responsible for disseminating messages to young people, this has considerable implications. Firstly, officials can leverage young people's positive perceptions of government websites. This should be of interest due to the potential for positive experiences with e-government to lead to "perceptions of transparency of government, accessibility of government information, and increased responsiveness of the federal government" (Tolbert & Mossberger, 2006, p. 365)." Government officials can increase the aspects of their websites that young people appreciate. Youth believe the websites are easy to use because they do not require the extensive process of establishing whether the information is true or not that other websites on the Internet require. By making information easy to find, geared toward their literacy levels, and applicable to the types of information they are studying in school and are personally interested in, the government can preserve the positive opinions of government websites that these young people currently have.

To better direct their websites to youth, the government should examine the websites that young people are using. In this study, participants seemed to have a more robust knowledge of web resources targeted specifically to them. For example, many of the participants in the program had heard of the health website [kidshealth.org](http://kidshealth.org), citing their teachers and web searches as ways they found out about

the site. Because of its specific focus on young people's literacy levels and health interests, it provides a "one-stop-shop" in some respects for general health information. While the government does have several sub-pages and even some youth-focused websites, these are often underdeveloped or targeted to very specific health domains (e.g. the now-defunct "Best Bones Forever" website focused on young women and bone health). The government's current policy in shifting away from agency-produced sites to a more centrally sourced youth e-government strategy may suggest they are attempting to create broader, youth-focused resources. How this will be implemented remains to be seen.

To reach youth and encourage additional use of online government resources, the government may need to do more extensive advertising than simply making the websites available. One study on e-government found that "mass media channels are more influential than are interpersonal channels" (Dimitrova and Chen, 2006, p. 185) when attempting to increase use and knowledge of resources. The participants' recollections of hearing about healthcare.gov and the campaign by Michelle Obama to increase youth activity are both indicative of this type of media influence. Creating interesting and useful government resources and then spreading the message through the media that youth consume could be powerful motivators for increased use of dot gov websites by young people.

A second strategy for the government to use to appeal to youth is to focus on the security of government websites. Government information policy, particularly in combination with salient current issues, seems to be influencing the way that young people behave online and with government information in general. The participants'

assurance of the relative safety of government websites is a potential boon to officials who would like to increase the role of government websites in financial and other sensitive data transfers with the government. By leveraging the beliefs that young people have of the security of government websites, government agencies can make a case as to why their sites should be used over others. Of course, this will need to be backed up by evidence that government websites are, in fact, secure and protected, as a data leak that actually reaches tweens' attention could be disastrous for the credibility they have earned so far.

The government also can address young people's concerns about government surveillance by a) explaining what they are actually monitoring and b) addressing information policies in such a way as to cease invasive intrusions on privacy. Young people are paying attention to this and it seems it is already having an impact on their belief in government's transparency. The statements many participants made about feeling uncomfortable accessing government sites because use could reveal private information show clearly the potential ramifications government information policy may be having on young people's use of online government resources, as well as their future interactions with government offline.

For educators, these findings should prompt changes to their own teaching practices of not only the credibility of government websites, but also about government information in general. Both the general findings and the case studies shed light on how an educator can contextualize his or her students' perceptions of government in order to best provide instruction on issues of policy and civics, particularly important when teaching students who may have pre-existing biases and

negative opinions. Indeed JazzyJay’s librarian in the HackHealth program demonstrated a keen awareness of the need for this type of individualized instruction when she had several conversations with Jazzy about the difference between opinions and facts, the danger of parroting others’ beliefs without having the knowledge to back them up, and the benefits of government that Jazzy was ignoring. As she said, “opinions are like elbows, everyone has them.” This type of critical thinking and analysis is often missing from a school day organized around tests and other assessments.

One way to introduce these skills is to tie them to the curriculum. Chapter one introduced relevant state curriculum standards for social studies by grade. Viewing a selection of these in the light of the literacy gaps this study demonstrates that youth have is instructive:

1. Analyze the usefulness of various sources of information used to make political decisions;
2. Analyze the influence of the media on political life;
3. Examine the impact of governmental decisions on individual rights and responsibilities in the United States;
4. Analyze how government needs to provide more protection and order during times of crisis, such as the natural disasters and threats to national security;
5. Analyze a document to determine point of view; Identify bias and prejudice; Compare information to prior knowledge; Determine the reliability of the document; Compare ideas, models, systems, and perspectives; Reconstruct the

arguments of issues or events; Assess the costs and benefits of alternatives;  
Verify or change prior understandings based on new information; and

6. Engage in civic participation and public discourse (Maryland State Department of Education, 2006)

Having students look at the information used by the government may give them insight into a) the real-life application of information literacy skills and b) a greater belief in the transparency of the political process. Learning to critically examine the media may help them identify their own biases and mitigate the effect of popular conspiracy theories or misinformation. Considering individual rights, as well as the benefits and trade-offs of increased protection and security will help students make educated decisions regarding their beliefs in policies, information-related and not. Analyzing documents, comparing information, and changing opinions based on new information are critical information literacy skills that will also help to teach young people to have open minds and alter past beliefs if they find them to be false. Finally, engaging in civic discourse teaches young people about different perspectives and allows them to see their own fallacies of belief.

In addition to the above recommendations for educators, information professionals can also use these findings to show the need to create lessons and projects that connect civics, social studies, and information literacy. The *Standards for the 21<sup>st</sup> Century Learner*, produced by the American Association of School Librarians in 2009, demonstrate significant overlap with the social studies standards outlined above. Specific examples include:

- Standard 1.1.5: Evaluate information found in selected sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context;
- Standard 1.1.7: Make sense of information gathered from diverse sources by identifying misconceptions, main and supporting ideas, conflicting information, and point of view or bias; and
- Standard 3.1.5: Connect learning to community issues.

School librarians also may need to re-examine their tendency to recommend “dot gov” resources without additional contextual teachings about government information in general. There were references during the study to participants having heard source recommendations from teachers, but not understanding the reasons behind them; Percy Potter (AA-WAT) for example recalled that a statement on sources he had given to the group was “not [his] personal opinion. It's like teachers and other people's opinion. Usually teachers say when you're researching don't try to use Wikipedia as much.” When asked if he knew why not, he replied “no.” Using the same type of shorthand for government websites might prove especially disappointing if the participants later find out the connection to government and they choose not to use the sites because of a pre-existing distrust. Explaining where the information comes from and what is available will take time and (potentially) additional civic lessons on the structure of government and the resources it makes available to the public, but this could have tremendous impact on not only the use of fact-based

government websites, but also the students' ability to reach critical government resources and aid as they grow older.

## SUMMARY

What lies at the core of this study's findings is the cross-cutting awareness that these young people have about issues of critical importance to the United States. Whether they view government responses to these issues positively or negatively (and, as chapter four showed, there are plenty of examples both ways), youth are tuned into issues much more than adults may think. Although many of their opinions are based on fictional accounts or conspiracies, the same could be said for many adults. These youth are at an age where they can still be taught the value of facts, biases in media, and other critical information literacy skills. In fact, as shown in this chapter, these are all included as fundamental skills of the curriculum. Chapter seven offers a summary of the findings and suggestions for future research into these critical areas of youth information behavior.

## **CHAPTER 7: CONCLUSION**

This concluding chapter first offers a summary of the findings and issues discussed in chapters four, five, and six. An overview of the limitations of the study follows this summary. Next, I discuss suggestions for future research. The chapter ends with concluding statements.

## SUMMARY OF FINDINGS

This dissertation began with two goals: 1) To develop an understanding of the participants' perceptions of government and e-government and 2) To observe connections between their perceptions of government and perceptions of e-government. The importance of these issues is based on:

- The increasing role of government websites in people's everyday lives;
- The potential insight that a study of young adolescents who are just starting to form abstract beliefs might give to agencies and educators who are attempting to develop the next civically-engaged generation, and;
- The distrust of government that recent studies of young people have shown.

The conceptual framework guiding the study was built on prior work in the areas of information-seeking behavior, credibility assessment, e-government, and trust in government. Four propositions for this framework were conceived:

1. Access is conceived as physical, intellectual and social (Burnett, Jaeger, & Thompson, 2008). Each of these levels can create barriers to information seeking and the fulfillment of information needs;
2. Demographics, experiences, and beliefs influence information-seeking behavior (Johnson, 2001);
3. An increase in confidence in the government after use of e-government has been demonstrated, though not with youth (Chee-Week, Bensabat, & Cenfetelli, 2008; Smith, 2010; Welsh, Hinnant, & Jae Moon, 2005). Thus, experiences with e-government may affect a user's perception of government; and



4. E-government is intended to promote democracy and access to government, thus any barriers to access should be identified and addressed.

These propositions underlie the questions posed to guide the research:

1. What are HackHealth participants' perceptions of government?
2. What are HackHealth participants' perceptions of e-government?

To understand HackHealth participants' perceptions of government, the study first looked at how they defined government. In their survey definitions, participants tended to consider the function of what the institution does, including its role in making laws, assisting Americans, offering protection, safety, and security, acting as a leader and keeping law and order, and acting as tax-collector. Some participants offered neutral definitions, but many definitions offered negative or positive assessments as they characterized their idea of government. These evaluations continued throughout the other data collection activities. Participants assessed government through several lenses, most represented in prior studies of how people form their level of trust in government. These lenses included institutions, the President, policy, information specifically cited from media, and through non-specific means. When considering institutions, most participants stuck with more generic terminology, evaluating the "people" who perform certain functions. Others, however, did assess elected officials and political parties. Relatively few assessed the government through their opinions of the President, though there were positive and negative reactions to Barack Obama. Many of the participants offered more general evaluations, explaining that they trust in government or that the government is "mean," but failed to explain on what they are basing these observations. The media

proved to be a powerful lens by which to make evaluations, as a great number of the negative assessments of government came from conspiracy theories gathered through both the Internet and TV entertainment. Policy proved to be the most frequently cited direction of evaluation, with participants both citing general actions taken by the government in terms of security or monetary policy (for example) and specific policies, such as the American Care Act and the response of the government to the Ebola outbreak of 2014. The most frequent policies cited revolved around government secrecy, government surveillance, and terrorism.

Participants had both negative and positive views of government. Common themes focused on by those with positive perceptions were economics; equality, rights, and impartiality; leadership and effectiveness; protection and security; trustworthiness and fairness; helpfulness, and expertise. Those with negative perceptions of government used many of the same themes, including economics, a trustworthiness and impartiality (or a lack thereof), and security, as well as politically motivated decisions.

Participants' knowledge of e-government was examined from their survey answers, as well as the way they conceived government websites throughout the rest of the data. Half of the participants were unsure about what government websites were based on their answers (or lack thereof) on the survey. This confusion came up throughout the program, with participants confusing dot gov sites with dot org URLs, displaying a lack of knowledge of the connection with the government by their contradictory opinions on government information in general and government

websites, and offering examples of government websites that do not exist, among others.

Despite these areas of confusion, participants largely had positive perceptions of government websites. They based their evaluations on such website characteristics as aesthetics and other surface heuristics, the actual content or message on the websites, a belief in the dot gov URL, recommendations from teachers, prior experience with government websites, or, most commonly, the source of the information (i.e. the government). Common reasons given for positive evaluations included the amount of information the websites included, how the sites compare to other websites, the sites' ease of use, the fact that the websites are safe and secure, and the trustworthiness or expertise of the government. Those with negative perceptions also mentioned the government as a reason for their perception, particularly the lack of trust they felt for government. They also mentioned aspects of the sites' aesthetics and content they disliked.

There were implications of these findings to both research and practice. For research, the study gave insight into the research areas of youth information behavior and e-government. Participants demonstrated information behaviors studied in prior research, as well as attitudes toward government and e-government that echoed previous findings with adults. There did not seem to be a clear connection between the participants' perceptions of government and e-government, but there were connections made in individual statements that suggest the perception of government might affect the perception of e-government.

The overall positive opinions of e-government suggest that it might be worthwhile for government officials to attempt to direct connections the opposite way, leveraging positive notions of government websites in order to help form more positive perceptions of government. This is just one of the practical implications of the study. For educators and information professionals, the findings suggest a need to focus on the common standards in social studies, information, and digital literacies to address young people's gaps in knowledge of government and e-government, as well as their developing critical thinking skills. The findings also show the need to provide context with suggestions of information sources. Overall the study highlights the importance of perceptions of government and e-government to the access of critical government information.

## LIMITATIONS

### METHODOLOGICAL LIMITATIONS

The nature of qualitative research is such that the researcher's interpretations are necessarily part of analysis, which carries with it the possibility of bias and misinterpretation of data. Of particular note is the researcher expectancy effect, wherein researchers are "more likely to perceive events in the desired direction" (Krathwohl, 2009, p. 499). They may "inadvertently tip the scales in a variety of ways – verbally (for example, with encouragement and clues) and nonverbally (smiling for right answers or frowning for wrong ones)" (Krathwohl, 2009, p. 499). This type of bias is part of what makes up demand characteristics of a study or "what the participants perceive the study wants of them" (Krathwohl, 2009, p. 500). As outlined

in chapter three, steps have been taken to mitigate these influences, particularly through external confirmation of coding and the triangulation of data.

In addition, data may be affected by the maturation effect, or the chance that “between observations, students might have grown older, more tired, bored, capable of more mature reasoning, or more serious about getting an education, as well as more biologically and socially advanced” (Krathwohl, 2009, p. 490). The data collection instruments were administered over a 10-12 week period. During the sessions, participants learned about credibility and helpful health online resources. While care was taken to administer the majority of the data collection tools toward the start of the program, participant observation and tools that were administered after the first week were all potentially susceptible to changes in the participants’ knowledge and behaviors. In addition, the study suffered from a lack of attrition (the participants included had differing levels of involvement in the study’s data instruments based on how many HackHealth sessions they attended).

#### STUDY POPULATION

A unique aspect of this study population is their geographic proximity to Washington, DC. This may promote an increased knowledge of government policy and related issues simply because they have family members or know people who work for the government. Additionally, this is a relatively small study population that is not representative. Even with both of these distinctions, however, findings are intended to invite further research rather than generalize to a larger population.

Selection bias, or “when a factor that determines group membership also affects the outcome of the treatment,” might have influenced findings (Krathwohl,

2009, p. 494). This was mitigated slightly by the fact that participants joined the study to take part in an after-school program about health, not government, and aside from their willingness to answer questions for this research, did not express any particular interest in government or politics.

#### PERCEPTION VS USE

This study focuses on participants' perceptions rather than their use of government websites. There is a definite possibility that even with positive perceptions, participants may have no intention of using government websites. This is actually reflected in observations made of the participants' research during the after-school program:

ACW (CC) typed in Kawasaki and skimmed down the Google search list. She said she didn't like the Mayo Clinic (which was number one) and hovered around kidshealth.com (she might have actually clicked both of these and then have gone back to the search page...this all happened pretty fast).

MedlinePlus was on the Google search result list, but she didn't even glance at it. ACW ended up on medicinenet.com and at some point clicked the ad for psoriasis and got confused.

Additionally, the data collection for this study occurred in a school environment.

While participants were asked about their perceptions of these websites for all types of searches, it is likely many focused on school information given their location.

Everyday life information search is, of course, even more difficult to observe because of access to participants, but both are certainly limitations of the study's findings.

## SUGGESTIONS FOR FUTURE RESEARCH

As mentioned in the limitations section above, the positive perceptions of these youth do not necessarily indicate that they are using government websites. A study of young people's use of government websites is a critical next step in understanding more about the connection between pre-existing beliefs, social access, and use of government information. Additionally studies of such a nature would inform our understanding of the connection between young people's information literacy skills in general and their application of these skills.

Another interesting direction of this research is to look more into participants' parents' political ideologies. For a variety of reasons (time, IRB approval, etc), this study focused only on the young people present at the after-school sessions. From political socialization literature, however, it is clear that parents have a significant impact on their children's political beliefs (Youniss, 2002). The influence of parents might prove to supercede the influence of current events and the media, or it might prove to simply add to the complex mix of factors that goes into a young person's political development. What would be particularly interesting for this research is the parental view and past use of online government information.

Finally, a deeper look at how a young person's digital literacy skills interact with their personal preferences for and biases against sources would shed light into the interplay between intellectual and social barriers to access. While this study was able to extrapolate some information about a participant's digital literacy skills, further development of a tool like the Health Literacy Assessment Tool, except

focused on government information and sources would be an ideal way to gain deeper understanding of young people's barriers to government information.

## CONCLUDING STATEMENTS

That a group of 10- to 12-year-olds specifically mentioned the fact that a website is less likely to be hacked as one of its features is mindboggling when we consider how little anyone thought of these issues a decade ago. Similarly, these participants' fears that the government would spy on them if they used government websites is an issue not often addressed in digital literacy education. On one hand, it is encouraging to know that these youth are considering information security and privacy issues. On the other hand, there is no clear sign that these perceptions are precipitating the use of trustworthy websites. Rather, these issues may be generating a generation of cynics.

This dissertation was intended to learn more about participants' perceptions of government and government websites, and possible connections between the two. Perhaps the most novel finding, however, is the degree to which participants considered information policy when evaluating government. This study is yet one more example of the critical role that information plays in the lives of people of all ages and only emphasizes the need for information professionals to help youth understand information bias, information policy, and information literacy skills writ large.



## **APPENDICES**

### **APPENDIX ONE: RECRUITMENT FLYER**

Dear Students (and Parents/Guardians),

Are you interested in science? In learning about health? We are starting a new after-school program for students like you. We are a team of researchers from the University of Maryland, and we want to discover the best ways to help kids learn

about health sciences and learn about keeping themselves and their families healthy. We need your help to do this!

We would like to invite you to participate in a **free after-school program**, which will begin on [insert program begin date]. We will meet once every week, [insert the day of the week] from [begin time] to [end time]. The program is twelve weeks long, with one introductory meeting before the program begins and another meeting for a celebration and party after the program is over. Each week, we will meet in the library after school to talk about health information and practice new ways of finding information online. The final celebration and party will be at the University of Maryland.

During the program, we'll ask you to concentrate on one health concern that interests you. Maybe you like to play football or soccer, but you're worried about how a concussion might affect you. Maybe your little sister has asthma, and you want to learn more about it. Maybe your uncle has high blood pressure – you get the idea. Everyone could use a little more information about their health!

After the program is over, we will have a final session for celebration and to find out more about what you thought of the things we accomplished during the project. Parents, we need you to be present at this final session too. As a way of thanking you and your child for participating, we will send you a check for \$50 to show our appreciation.

We've attached a brief survey to this letter so that we can get in touch with you before the program begins. If you're interested in participating, please complete the form and return it to the school librarian (media specialist) **as soon as possible**. We hope to hear from you.

If you have any questions about the program or what we're trying to accomplish, we'd be happy to answer them. You can contact \_\_\_ at \_\_\_ or \_\_\_.

Thank you so much! We look forward to meeting you!

**APPENDIX TWO: SURVEY (SECTIONS USED IN THIS STUDY)**

**Health Interest Survey**

**Background Information**

Name:		Pseudonym:	
School:		Grade:	
Please circle:	Boy    Girl	Birthdate (mm/dd/yy):	
Race (circle all that apply):	American Indian or Alaska Native	Black or African-American	Native Hawaiian or Pacific Islander
	Asian	Hispanic or Latino	White
	Other:		
Who do you live with? (circle all that apply)    Mom    Dad    Grandparent    Other (please list):			
Where are your parents from?			
What language do you tend to speak at home?		What does your dad do for work?	
		What does your mom do for work?	
Did your mom graduate from high school?    Yes    No		From college?    Yes    No	
Did your dad graduate from high school?    Yes    No		From college?    Yes    No	
What would you like to be when you grow up (for example, teacher, doctor, racecar driver)?			
Are you taking a health class at school? Yes    No		How many <b>w</b> orking computers are in your home?	
Do you own a cell phone? Yes    No		How many computers at home can access the Internet? 0    1    2    3    4 or more	
Do you ever use a cell phone, iPod, or other mobile device to access the Internet? Yes    No			
How often [always, often, sometimes, rarely, or never] do you access the Internet <i>from home</i> using:			
A desktop computer?		A laptop?	
A phone?		A tablet?	
Have you ever used the Internet to look up health-related information? Yes (on my own)    Yes (but only with someone else)    No			
How good are you at using the internet?			

Not good at all    Not very good    OK    Pretty good    Very good

## Trust in Government

How would you define “government”?

What is a government agency? If you can, give an example.

What is a government website? If you can, give an example.

Who is the President of the United States?

The following questions ask about your opinions. Fill in the bubble to show how much you agree or disagree with each statement.

<b>Your Opinion</b>	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	Not Applicable
The government really cares what people like my family and I think.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, elected officials (e.g., senators, members of city council, governor, president) cannot be trusted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basically, people get fair treatment in America, no matter who they are.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In America you have an equal chance no matter where you come from or what race you are.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most people can be trusted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**APPENDIX THREE: HEALTH LITERACY ASSESSMENT TOOL**



Pseudonym \_\_\_\_\_ Date \_\_\_\_\_

Jasmine’s doctor told her recently that she has type 1 diabetes, but Jasmine doesn’t really understand what that means. She wants to use the Internet to find out, but she doesn’t think she’s very good at using the Internet, so she has asked for your help.

What is Google, and why do you use it?  
\_\_\_\_\_  
\_\_\_\_\_

To get the information she needs, what should Jasmine type into the box on Google?  
\_\_\_\_\_

Jasmine noticed different kinds of websites in the search results. What do these mean:  
.com \_\_\_\_\_  
.org \_\_\_\_\_  
.gov \_\_\_\_\_  
.edu \_\_\_\_\_  
.net \_\_\_\_\_

Jasmine wants to know which three of these kinds of websites she can trust the most (circle 3):  
.com                  .org                  .gov                  .edu                  .net

Explain to Jasmine why you chose these.  
\_\_\_\_\_  
\_\_\_\_\_

Jasmine got millions of results from her Google search. How can she decide which ones to click on?

---

---

Jasmine's teacher told her she should always start looking for information with the links on the school library website. What's the difference between using the school library site and using Google? Which do you think is better and why?

---

---

Jasmine's teacher also told her that when she uses a website, she should make sure the information is credible. What does credible mean?

---

---

Jasmine found this URL: <http://webmd.com/diabetes/guide/type-1-diabetes>. She's wondering if the site is related to her topic. How can she tell?

---

---

She went to the website, but Jasmine isn't sure that she can trust the information there. How can she decide?

---

---

Jasmine found two sites about type 1 diabetes, but they don't have the same information. How can she tell which one is right?

---

---

What are three health websites you'd recommend to Jasmine?

---

---

---

---

What should Jasmine do to keep track of the information she's found about diabetes?  
Give her three suggestions.

---

---

---

Is there anything else you would tell Jasmine?

---

---

---

#### **APPENDIX FOUR: SEMI-STRUCTURED INTERVIEW QUESTIONS**

1. How did you find out about HackHealth?
2. Why are you interested in participating in the program?
3. When you complete assignments for class, how do you search for information? Give me an example of something that you have completed recently.
4. How can you tell whether you can trust what you're reading online?
5. How did you learn how to search for information on the Internet?
  - a. Follow up (depending on their answer): Who taught you? Did you learn it in school, at home?
  - b. How comfortable are you searching for information on the Internet; or, how confident are you that you could find the information you are looking for?
6. Ask students if they know the difference between .gov, .com, .org, .edu, and .net. If they do, ask them what the differences are. Ask them which they think is the most reliable and why.
7. Ask students if they've ever used a site ending in ".gov". If so, what did they think of it? Regardless of past use, what do they think of ".gov" sites in general?
8. Ask students to list their favorite health sites, what they like best about them, and how they found out about the sites. If they don't know any, note this.
9. Ask students what their general perception is of government - what does the word mean and to them and how do they feel about what the word represents?



## APPENDIX FIVE: CARD-SORTING

### Card-Sorting Exercises

1. Shuffle each deck, so that the cards are in a random order.
2. Working in small groups of 3 to 4 students, go through each of the three decks asking the students to talk about which source they would be most likely to turn to if they needed health information. Ask the students to explain the reasons behind their answers [e.g., Why would they most likely turn to the Internet? Why would they not ask a family member?]
3. For each deck, ask the students if there are any other sources that we didn't ask them about. If so, ask them if they would turn to this source for health information and why or why not.
4. For each deck, ask whether there are any particular situations in which they would tend to consult a particular source.
5. Throughout this process, try to probe to get detailed explanations behind the students' responses.

#### Deck 1: Types of People

- Doctors
  - Nurses
  - Teachers
  - Family members
  - Friends
  - Librarians
  - Other:
- 

#### Deck 2: Types of Sources

- Books
- Magazines
- Brochures/Pamphlets
- Radio
- TV
- Internet

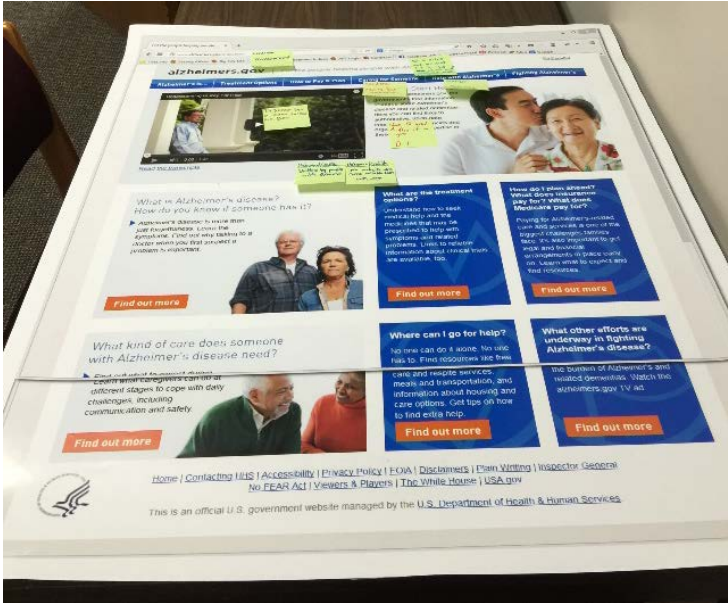
- Other:
- 

### **Deck 3: Types of Internet Sites**

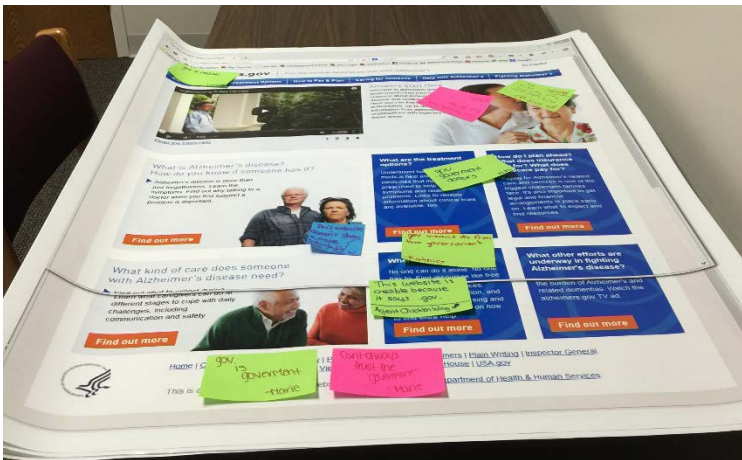
- Search Engines (such as Google)
  - Medical Websites
  - Government Agency Websites
  - Religious/Cultural Websites
  - News Websites
  - Insurance Websites
  - Shopping Websites
  - Dictionary/Encyclopedia Websites (other than Wikipedia)
  - Wikipedia
  - Blogs
  - Forums/Message Boards
  - Videos/YouTube
  - Personal Websites
  - Other:
-

# APPENDIX SIX: CREDIBILITY SCREENSHOT ACTIVITY

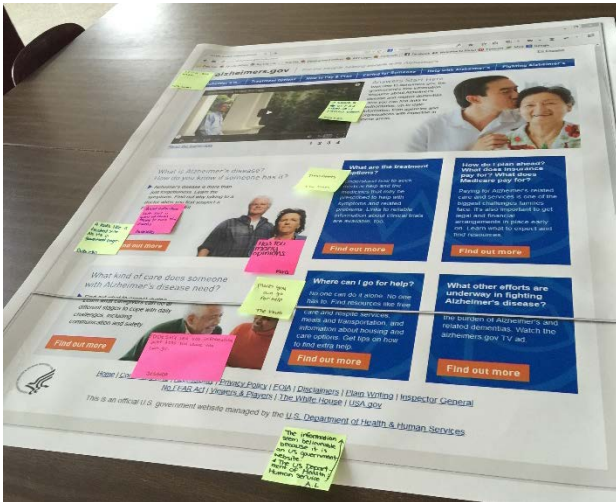
## School AA



## School CC



School DD



**APPENDIX SEVEN: GOVERNMENT PERCEPTIONS AND SURVEYS COMPARED**

<b>Participant</b>	<b>The government really cares what people like my family and me think. <sup>13</sup></b>	<b>In general, elected officials cannot be trusted. <sup>14</sup></b> <i>*Note that lower score indicates trust</i>	<b>General Perception of Government</b>
Agent Chicken Wing	4	4	Negative
Ana Lynch	3	2	Positive
Anonymys	3	3	Positive
Batman	3	4	Neutral
Cap'n Crunch	3	2	Neutral
Chocolate Rain	Did not complete survey		Negative
Coffee Ice Cream	3	4	Negative
Dr. Who	3	2	Positive
Flash	3	2	Positive
Foxy 57	4	3	NED
Gabriela	3	3	Positive
Hopekeeper	4	3	Positive
Jay the Greatest	3	3	Negative
Jazzy Jay	1	3	Negative
Jessica	3	3	NED
Katniss	3	3	NED
Kira	3	2	Positive
LilMarMar	2	2	Positive
LolaRam	2	3	Positive
Marie	3	3	Negative
Morgan Rice	4	2	Positive
Mr. Goldan Man	Did not complete survey		NED
Mr. Paste	2	4	Negative
Ms. Sterious	4	3	Negative
Natsu Dragniel	2	4	Negative
Nightwing	Did not complete survey		Negative
NinjaGirl	Did not complete survey		Negative
Nunu	3	4	Negative

<sup>13</sup> Scale: Strongly disagree (1), Disagree (2), Uncertain (3), Agree (4), Strongly Agree (5)

<sup>14</sup> Scale: Strongly disagree (1), Disagree (2), Uncertain (3), Agree (4), Strongly Agree (5)

Percy Potter	5	1	Positive
Queen Pam	3	4	Negative
Soccer4Life	4	2	Positive
Sparten117	4	4	Negative
SuperSweet (SS-BB)	Did not complete survey		NED
Sweet Hershey Kiss	3	3	Negative
The Blue Anime	4	2	Positive
Unknown	3.5	2	Positive
Waldo	3	4	Neutral

## BIBLIOGRAPHY

- Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs,  
 American Medical Association. (1999). Health Literacy Report of the Council  
 on Scientific Affairs. *JAMA*, 281, 552-557.
- Agosto, D. E. (2002a). Bounded rationality and satisficing in young people's Web-  
 based decision-making. *Journal of the American Society for Information  
 Science and Technology*, 53, 16–27.
- Agosto, D. E. (2002b). A model of young people's decision-making in using the web.  
*Library and Information Science Research*, 24(4), 311-41.
- American Association of School Librarians (AASL) (2009), *Standards for the 21st-  
 century learner in action*, American Association of School Librarians,  
 Chicago, IL.
- American Library Association. (2014). The state of America's libraries. *American  
 Libraries*. Available:  
[http://www.ala.org/news/sites/ala.org.news/files/content/2014-State-of-  
 Americas-Libraries-Report.pdf](http://www.ala.org/news/sites/ala.org.news/files/content/2014-State-of-<br/>
  Americas-Libraries-Report.pdf)
- Anderson. (2002). A usability analysis of selected Federal government Websites.

Available: [http://www.aboutweb.org/file/andersen\\_usb1.pdf](http://www.aboutweb.org/file/andersen_usb1.pdf) .

- Archea, J. (1977). The place of architectural factors in behavioral theories of privacy. *Journal of Social Issues, 33*, 16–37.
- Arnett, J. J. (1995). Adolescents' uses of media for self-socialization. *Journal of youth and adolescence, 24*(5), 519-533.
- Baker, D.W. (2006). The meaning and measure of health literacy. *Journal of General Internal Medicine, 21*, 878–883.
- Bakker, T. P., & de Vreese, C. H. (2011). Good news for the future? Young people, Internet use, and political participation. *Communication Research*.
- Barron, B. (2010). Conceptualizing and tracing learning pathways over time and setting. *NSSE Yearbook, 109*(1), 113-127.
- Bassett, R., Beagan, B.L., Ristovski-Slijepcevic, S., & Chapman, G.E. (2008). Tough Teens: The Methodological Challenges of Interviewing Teenagers as Research Participants. *Journal of Adolescent Research, 23*(2), 119-131.
- Becker, S., Crandall, M. D., Fisher, K. E., Kinney, B., Landry, C., and Rocha, A. (2010). *Opportunity for all: How the American public benefits from internet access at U.S. libraries*. Washington, DC: Institute of Museum and Library Services. Available: <http://tascha.uw.edu/usimpact>
- Bélanger, F., & Carter, L. (2009). The impact of the digital divide on e-government use. *Communications of the ACM, 52*(4), 132-135.
- Berger, P.L. & Luckmann, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. Doubleday, Garden City, NY.
- Bernhardt, J.M., Brownfield, E.D., & Parker, R.M. (2005). Understanding health

literacy. In Schwartzberg JG, VanGeest JB, Wang CC, editors (3-16).

*Understanding Health Literacy: Implications for Medicine and Public Health.*

American Medical Association.

Bertot, J. C., & Jaeger, P. T. (2006). User-centered e-government: Challenges and benefits for government Web sites. *Government Information Quarterly*, 23(2), 163-168.

Bertot, J.C., Jaeger, P.T., & Hansen, D. (2012). The impact of polices on government social media usage: Issues, challenges, and recommendations. *Government Information Quarterly*, 29(1), 30–40.

Bertot, J. C., Jaeger, P. T., Langa, L. A., & McClure, C. R. (2006). Drafted: I want you to deliver e-government. *Library Journal*, 131(13), 34-39.

Bertot, J. C., McClure, C. R., & Jaeger, P. T. (2008). The impacts of free public Internet access on public library patrons and communities. *Library Quarterly*, 78, 285-301.

Bilal D. (2001). Children's use of the Yahoooligans! Web search engine: II. Cognitive and physical behaviors on research tasks. *Journal of the American Society for Information Science & Technology*, 52(2), 118-137.

Bilal, D. (2004). Children's information seeking on the Web. In M.K. Chelton & C. Cool (Eds.), *Youth information-seeking behavior* (pp. 271-291). Lanham, MD: Scarecrow Press.

Bisland, B.M. (2009). Government websites for children: How useful are they for content instruction? Paper presented at the American Educational Research Association Annual Convention, San Diego, CA.



- Borzekowski, D.L.G. & Rickert, V.I. (2001). Adolescents, the Internet, and health: Issues of access and content. *Journal of Applied Developmental Psychology*, 155, 813-817.
- Bovens, M. and Stavros, Z. (2002). From street-level to system-level bureaucracies: How information and communication technology is transforming administrative discretion and constitutional control. *Public Administration Review*, 62(2): 174-184.
- Boyar, R., Levine, D., & Zensius, N. (2011, April). TECHsex USA: Youth sexuality and reproductive health in the digital age. Oakland, CA: ISIS, Inc.  
[http://www.nnaapc.org/publications/ISISpaper\\_techsx\\_usa.pdf](http://www.nnaapc.org/publications/ISISpaper_techsx_usa.pdf)
- Brown, J. D., & Bobkowski, P. S. (2011). Older and newer media: Patterns of use and effects on adolescents' health and well-being. *Journal of Research on Adolescence*, 21(1), 95-113.
- Brown, S.L., Teufel, J.A., & Birch, D.A. (2007). Early adolescents perceptions of health and health literacy. *Journal of School Health*, 77(1), 7-15.
- Browne, G. J., Pitts, M. G., & Wetherbe, J. C. (2007). Cognitive stopping rules for terminating information search in online tasks. *MIS quarterly*, 89-104.
- Browning, G. (2002). *Electronic democracy: Using the Internet to transform American politics* (2nd ed.). Medford, NJ: CyberAge Books/Information Today.
- Burnett, G., Jaeger, P.T., & Thompson, K.M. (2008). Normative behavior and information: The social aspects of information access. *Library & Information Science Research*, 30, 56-66.

- Carter, L., & Bélanger, F. (2005). The utilization of e-government services: citizen trust, innovation and acceptance factors. *Journal of Information Systems, 15*, 5–25.
- Centers for Disease Control and Prevention. (2013). *National Health Education Standards*. Atlanta, GA: Centers for Disease Control and Prevention.  
Available: <http://www.cdc.gov/healthyyouth/sher/standards/>
- Chadwick, A. (2001). The electronic face of government in the Internet age: Borrowing from Murray Edelman. *Information, Communication and Society, 4*(3), 435–457.
- Chatman, E. A. (1991). Life in a small world: Applicability of gratification theory to information-seeking behavior. *Journal of the American Society for Information Science (1986-1998), 42*(6), 438.
- Chatman, E.A. (1996). The impoverished life-world of outsiders. *Journal of the American Society for Information Science, 47*(3):193-206.
- Chee-Wee, T., Bensabat, I., & Cenfetelli, R.T. (2008). Building citizen trust towards e-government services: Do high quality websites matter? *Proceedings of the 41st Hawaii International Conference on System Sciences*.
- Dimitrova, D. V., & Chen, Y. C. (2006). Profiling the Adopters of E-Government Information and Services The Influence of Psychological Characteristics, Civic Mindedness, and Information Channels. *Social Science Computer Review, 24*(2), 172-188.
- Citrin, J. (1974). Comment: The political relevance of trust in government. *The American Political Science Review, 68*(3), 973-988.

- Citrin, J. & Green, D.P. (1986). Presidential leadership and the resurgence of trust in government. *British Journal of Political Science*, 16(4), 431-453.
- Clinton, W.J. (1997). Memorandum for the heads of executive departments and agencies. *The White House Office of the Press Secretary*. Available: <https://www.cia.gov/kids-page/privacy-statement/whmemo.txt>
- Collins, A., Joseph, D., & Bielaczyc, K. (2004). Design research: Theoretical and methodological issues. *The Journal of the Learning Sciences*, 13(1), 15-42.
- Committee on STEM Education National Science and Technology Council. (2013). *Federal science, technology, engineering, and mathematics (STEM) education 5-year strategic plan*. Available: [http://www.whitehouse.gov/sites/default/files/microsites/ostp/stem\\_stratplan\\_2013.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/stem_stratplan_2013.pdf)
- Cooke, T.E. & Gronke, P. (2005). The skeptical American: Revisiting the meanings of trust in government and confidence in institutions. *Journal of Politics*, 67(3), 784–803.
- Creswell, J.W. (2007) *Qualitative inquiry and research design: Choosing among five approaches* (2<sup>nd</sup> ed.). New York, NY: Sage Publications.
- Crystal, D.S. & DeBell, M. (2002). Sources of civic orientation among American youth: Trust, religious valuation, and attributions of responsibility. *Political Psychology*, 23(1), 113-132.
- Damico, A.J., Conway, M.M., & Damico, S.B. (2000). Patterns of political trust and mistrust: Three moments in the lives of democratic citizens. *Polity*, 32(3), 377-400.

- Darbyshire, P., MacDougall, C., & Schiller, W. (2005). Multiple methods in qualitative research with children: more insight or just more?. *Qualitative research*, 5(4), 417-436.
- Davies, T. R. (2002). Throw e-gov a lifeline. *Governing*, 15(9), 72.
- Davis, R. (1999). *The Web of Politics: The Internet's Impact on the American Political System*. New York: Oxford University Press.
- Department of Education. (2001). About—Consortium for Education Toolkit. Available: <http://www2.ed.gov/free/toolkit/about.html>
- Dervin, B. (1983). An overview of sense-making research: Concepts, methods, and results to date. Presented at the International Communication Association annual meeting, Dallas, May 1983. Available: <https://www.ideals.illinois.edu/bitstream/handle/2142/2281/Dervin83a.htm>
- DeWalt, K.M., & DeWalt, B.R. (2011). *Participant observation: A guide for fieldworkers*. Plymouth, U.K.: AltaMira Press.
- Dimitrova, D. V., & Chen, Y. C. (2006). Profiling the adopters of e-government information and services: The influence of psychological characteristics, civic mindedness, and information channels. *Social Science Computer Review*, 24(2), 172-188.
- Dresang, E. (2005). The information-seeking behavior of youth in the digital environment. *Library Trends*, 54(2), 178-196.
- Druin, A., Foss, E., Hatley, L., Golub, E., Guha, M. L., Fails, J., & Hutchinson, H.

- (2009). How children search the Internet with keyword interfaces. In *Proceedings of the 8<sup>th</sup> International Conference on Interaction Design and Children* (p. 89-96), Cuomo, Italy.
- E-government Act of 2002. P.L. 107–347.
- Eastin, M.S. (2008). Toward a cognitive developmental approach to youth perceptions of credibility. In M. J. Metzger & A. J. Flanagin (Eds.), *Digital Media, Youth, and Credibility* (pp. 101-122). Cambridge, MA: The MIT Press.
- Easton D. (1965). *A Systems Analysis of Political Life*. New York: Wiley
- Eisenberg, M. B., & Berkowitz, R. E. (1990). *Information Problem Solving: The Big Six Skills Approach to Library & Information Skills Instruction*. Norwood, NJ: Ablex Publishing.
- Fergie, G., Hunt, K., & Hilton, S. (2013). What young people want from health-related online resources: a focus group study. *Journal of Youth Studies*, 16(5), 579-596
- Feldman, S. (1983). The measurement and meaning of political trust. *Political Methodology*, 9(3), 341-54.
- Fidel, R., Davies, R. K., Douglass, M. H., Holder, J. K., Hopkins, C. J., Kushner, E. J., Miyagishima, B.K., and Toney, C. D. (1999), “A visit to the information mall: Web searching behavior of high school students”, *Journal of the American Society for Information Science*, Vol. 50 No. 1, pp. 24-37.
- Fisher, K. E., Bishop, A. P., Fawcett, P., & Magassa, L. (2013, December). InfoMe@

teen design days: a multi-disciplinary, design thinking approach to community development. In *Proceedings of the Sixth International Conference on Information and Communications Technologies and Development: Notes-Volume 2* (pp. 25-28). ACM.

Fisher, K.E., Marcoux, E., Meyers, E., and Landry, C.F. (2007). Tweens and everyday life information behavior: Preliminary findings from Seattle. In M.K. Chelton & C. Cool (Eds.), *Youth information-seeking behavior II* (pp. 1-26). Lanham, MD: The Scarecrow Press.

Flanagin, A. J., & Metzger, M. J. (2008). Digital media and youth: Unparalleled opportunity and unprecedented responsibility. In M. Metzger & A. Flanagin (Eds.), *Digital media, youth, and credibility* (pp. 5-27). Cambridge, MA: The MIT Press.

Flanagan, C.A., & Sherrod, L.R. (1998). Youth political development: An introduction. *Journal of Social Issues*, 54(3), 447-456

Flanagan, C.A., Syvertsen, A.K. & Stout, M.D. (2007). Civic measurement models: Tapping adolescents' civic engagement. *Circle Working Paper 55*. Available: <http://www.civicyouth.org/PopUps/WorkingPapers/WP55Flannagan.pdf>

Foss, E., Druin, A., Yip, J., Ford, W., Golub, E., and Hutchinson, H. (2013). Adolescent search roles. *Journal of the American Society for Information Science and Technology*, 64(1), 173-189.

Gasser, U., Cortesi, S., Malik, M., & Lee, A. (2012). Youth and digital media: From credibility to information quality. Berkman Center for Internet & Society. Available: <http://ssrn.com/abstract=2005272>.

- Gibson, A. N., Bertot, J. C., & McClure, C. R. (2009). Emerging roles of public libraries as e-government providers. *Proceedings of the 42nd Hawaii International Conference on Systems Sciences (HICSS '09)*. Waikoloa, Big Island, Hawaii.
- Glaeser, E. L., Laibson, D., Scheinkman, J. A., & Soutter, C. L. (2000). Measuring trust. *Quarterly Journal of Economics*, *115*(3), 811-846
- Gray, N.J., Klein, J.D., Noyce, P.R., Sesselberg, T.S., & Cantrill, J.A. (2005). The Internet: A window on adolescent health literacy. *Journal of Adolescent Health*, *37*(3), 243.e1-243.e7.
- Gross, M. (1999). Imposed queries in the school library media center: A descriptive study. *Library & Information Science Research*, *21*(4), 501–521.
- Guba, E., & Lincoln, Y. (1988). Do inquiry paradigms imply inquiry methodologies? In D.M. Fetterman (Ed.), *Qualitative Approaches to Evaluation in Education*. New York: Praeger.
- Hanson, D.L., Derry, H.A., Resnick, P.J., & Richardson, C.R. (2003). Adolescents searching for health information on the Internet: An observational study. *Journal of Medical Internet Research*, *5*(4), e25.
- Hardin, R. (2002). *Trust and Trustworthiness*. New York: Russell Sage.
- Hargittai, E., & Hinnant, A.(2008). Digital Inequality: Differences in young adults' use of the internet. *Communication Research*, *35*(5), 602-621.
- Harrison, T.M., Zappen, J.P., & Adali, S. (2005). Building community information systems: The connected kids case. *Computer*, *38*(12) 62-69.
- Hernon, P., Reylea, H. C., Dugan, R. E., & Cheverie, J. F. (2002). *United States*

*government information: Policies and sources*. Westport, CT: Libraries Unlimited.

Hetherington, M.J. (1998). The political relevance of political trust. *The American Political Science Review*, 92(4), 791-808.

Hirsh, S.G. (1999). Children's relevance criteria and information seeking on electronic resources. *Journal of the American Society for Information Science*, 50(14), 1265-1283.

Hirsh, S. G. (2004). Domain knowledge and children's search behavior. In (M.K. Chelton and C. Cool (Eds.), *Youth information-seeking behavior: Theories, models, and issues II* (pp. 241-270). Lanham, MD: Scarecrow Press.

Hmielowski, J. D., Beam, M. A., & Hutchens, M. J. (2015). Structural Changes in Media and Attitude Polarization: Examining the Contributions of TV News Before and After the Telecommunications Act of 1996. *International Journal of Public Opinion Research*, edv012.

Holt, L. E., & Holt, G. E. (2010) *Public library services for the poor: Doing all we can*. Chicago, IL: ALA Editions.

Horst, H. A., Herr-Stephenson, B., & Robinson, L. (2010) Media ecologies. In M. Ito, S. Baumer, M. Bittanti, d. boyd, R. Cody, B. Herr-Stephenson, H. A. Horst, P. G. Lange, D. Mahendran, K. Z. Martinez, C. J. Pascoe, D. Perkel, L. Robinson, C. Sims, & L. Tripp (authors), *Hanging out, messing around, geeking out: Kids living and learning with new media* (pp. 29-78). The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. Cambridge, MA: The MIT Press.



- Hsieh, H.-F., & Shannon, S. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research, 15*(9), 1277-1288.
- Institute of Medicine (IOM). (2004). *Health Literacy: A Prescription to End Confusion*. Washington, DC: The National Academies Press.
- Institute of Politics. (2014). Executive summary: Survey of young Americans' attitudes toward politics and public service: 25th edition. *Harvard University*. Available:  
[http://www.iop.harvard.edu/sites/default/files\\_new/Harvard\\_ExecSummarySpring2014.pdf](http://www.iop.harvard.edu/sites/default/files_new/Harvard_ExecSummarySpring2014.pdf)
- Institute of Politics. (2015). Survey of young Americans' attitudes toward politics and public service: 27<sup>th</sup> edition. *Harvard University*. Available:  
[http://www.iop.harvard.edu/sites/default/files\\_new/IOPSpring15%20PollTopline.pdf](http://www.iop.harvard.edu/sites/default/files_new/IOPSpring15%20PollTopline.pdf)
- Ito, M., Antin, J., Finn, M., Law, A., Manion, A., Mitnick, S., ... & Horst, H. A. (2009). *Hanging out, messing around, and geeking out: Kids living and learning with new media*. Cambridge, MA: MIT press.
- Jackson, L. A., Zhao, Y., Kolenic, A., Fitzgerlad, H. E., Harold, R., III, & von Eye, A. (2008). Race, gender and information technology use: The new digital divide. *CyberPsychology & Behavior, 11*(4), 437-442.
- Jaeger, P.T. (2005). Deliberative democracy and the conceptual foundations of electronic government. *Government Information Quarterly, 22*, 702-719.
- Jaeger, P. T. (2006). Assessing Section 508 compliance on federal e-government Web

sites: A multi-method, user-centered evaluation of accessibility for persons with disabilities. *Government Information Quarterly*, 23(2), 169-190.

Jaeger, P. T., & Thompson, K. M. (2004). Social information behavior and the democratic process: Information poverty, normative behavior, and electronic government in the United States. *Library & Information Science Research*, 26(1), 94–107.

Jaeger, P. T., & Thompson, K. M. (2005). Social information behavior and the democratic process: Information poverty, normative behavior, and electronic government in the United States. *Library & Information Science Research*, 26(1), 94-107.

Jenkins, H. (2009). Confronting the challenges of participatory culture: Media education for the 21st century. *The MacArthur Foundation*. Cambridge, MA: The MIT Press.

Jennings, M. K., Stoker, L., & Bowers, J. (2009). Politics across generations: Family transmission reexamined. *The Journal of Politics*, 71(03), 782-799.

Johnson, J.D. (2009). An impressionistic mapping of information behavior with special attention to contexts, rationality, and ignorance. *Information Processing & Management*, 45(5), 593-604.

Johnson, J.D., Andrews, J.E., & Allard, S. (2001). A model for understanding and affecting cancer genetics information seeking. *Library & Information Science Research*, 23, 335–349.

Johnson, J. D. E., Case, D. O., Andrews, J., Allard, S. L., & Johnson, N. E. (2006).

- Fields and pathways: Contrasting or complementary views of information seeking. *Information Processing & Management*, 42(2), 569-582.
- Kafai, Y. B., & Bates, M. J. (1997). Internet Web-searching instruction in the elementary classroom: Building a foundation for information literacy. *School Library Media Quarterly*, 25, 103 -111.
- Kerka, S. (2003). Health literacy beyond basic skills. In Hull GA, Mikulecky L, St Clair R, Kerka S. (Eds.). *Multiple literacies: A compilation for adult educators* (pp. 2-4, 18-21). Columbus, OH: Center for Education and Training for Employment.
- Krathwohl, D. R. (2009). *Methods of educational and social science research: An integrated approach* (3<sup>rd</sup> ed.). Long Grove, IL: Waveland Press.
- Kuhlthau, C.C. (1991). Inside the search process: Information seeking from the user's perspective. *Journal of the American Society for Information Science*, 42(5):361-371.
- Kwak, N., Shah, D. V., & Holbert, R. L. (2004). Connecting, trusting and participating: The direct and interactive effects of social associations. *Political Research Quarterly*, 57(4), 643-652.
- Lenhart, A. (2012). *Digital divides and bridges: Technology use among youth* [presentation slideshare], April 13. Accessed: <http://www.slideshare.net/PewInternet/digital-divides-and-bridges-technology-use-among-youth>.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). Social media and young

- adults. *Pew Internet & American Life Project*. Available:  
[http://pewinternet.org/~media/Files/Reports/2010/PIP\\_Social\\_Media\\_and\\_Young\\_Adults\\_Report\\_Final\\_with\\_toplevels.pdf](http://pewinternet.org/~media/Files/Reports/2010/PIP_Social_Media_and_Young_Adults_Report_Final_with_toplevels.pdf)
- Levi, M. & Stoker, L. (2000). Political trust and trustworthiness. *Annual Review of Political Science*, 3, 475–507.
- Levitsky, A. (2014). Lenhart: Adolescents more suspicious of government, less suspicious of corporate data collection online. *The Chautauquan Daily*, July 10. Available: <http://chqdaily.com/2014/07/10/lenhart-adolescents-more-suspicious-of-government-less-suspicious-of-corporate-data-collection-online/>
- Lincoln, Y.S., & Guba, E. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Kaiser Family Foundation. (2010). *Generation M<sup>2</sup>: Media in the lives of 8- to 18-year-olds*. Henry J. Kaiser Family Foundation. Available:  
<https://kaiserfamilyfoundation.files.wordpress.com/2013/04/8010.pdf>
- Kaiser Family Foundation. (2001). *Generation Rx.com: How young people use the Internet for health information*. Available:  
<http://kaiserfamilyfoundation.files.wordpress.com/2001/11/3202-genrx-report.pdf>
- Kelly, D. C. (2008). In preparation for adulthood: Exploring civic participation and social trust among young minorities. *Youth & Society*.
- Kuhlthau, C.C. (1991). Inside the search process: Information seeking from the user's perspective. *Journal of the American Society for Information Science*, 42(5):361-371.
- Madden, A.D., Ford, N.J., Miller, D., & Levy, P. (2006). Children's use of the

internet for information-seeking: What strategies do they use, and what factors affect their performance? *Journal of Documentation*, 62(6), 744-761.

Madden, M., Lenhart, A., Duggan, M., Cortesi, S., & Gasser, U. (2013). Teens and technology 2013. *Pew Internet & American Life Project*. Available: [http://www.pewinternet.org/files/oldmedia/Files/Reports/2013/PIP\\_TeensandTechnology2013.pdf](http://www.pewinternet.org/files/oldmedia/Files/Reports/2013/PIP_TeensandTechnology2013.pdf)

Mancuso, J.M.(2008). Health literacy: A concept/dimensional analysis. *Nursing and Health Science*, 10, 248–255.

Manganello, J.A. (2007). Health literacy and adolescents: a framework and agenda for future research. *Health Education Research*, 23(5), 840-847.

Marshall, C. & Rossman, G.B. (2011). *Designing qualitative methods* (5<sup>th</sup> ed.). New York, NY: Sage Publications.

Maryland State Department of Education. (2006). *Maryland State Curriculum for Social Studies, Grades 3-8*. Available: [http://mdk12.msde.maryland.gov/share/vsc/vsc\\_social\\_studies\\_gr38.pdf](http://mdk12.msde.maryland.gov/share/vsc/vsc_social_studies_gr38.pdf)

Maxwell, J.A. (1996). *Qualitative Research Design: An Interactive Approach*. Thousand Oaks, CA: Sage.

McLeod, J.M. (2000). Media and civic socialization of youth. *Journal of Adolescent Health*, 27S, 45-51.

Mervis, J. (2013a). House panel questions Obama's plan to reorganize science education. *Science*, June 5. Available: <http://news.sciencemag.org/people-events/2013/06/house-panel-questions-obamas-plan-reorganize-science-education>

- Mervis, J. (2013b). NIH swears off science education. *Science*, September 27.
- Available:
- <http://news.sciencemag.org/education/2013/09/nih-swears-science-education>
- Meyers, E. M., Fisher, K. E., & Marcoux, E. (2009). Making Sense of an Information World: The Everyday-Life Information Behavior of Preteens. *The Library Quarterly*, 79(3).
- Miller, A.H. (1974). Political issues and trust in government, 1964-70. *American Political Science Review*, 68, 951-972.
- Miller, A.H., & Borrelli, S. (1991). Confidence in government during the 1980s. *American Politics Quarterly*, 19, 147-73.
- National Park Service. (n.d.). University of Maryland human computer interaction lab kidsteam. *WebRangers*. Available:
- <http://www.nps.gov/webrangers/partners2.cfm>
- Newton, K. (2001). Trust, social capital, civic society and democracy. *International Political Science Review*, 22, 201-214.
- Newton, K., & Pippa, N. (2000). Confidence in public institutions: Faith, culture or performance? In S. Pharr and R. Putnam (Eds.), *Disaffected democracies* (pp. 52-73). Princeton, NJ: Princeton University Press
- Niemi, R.G. and Junn, J. (1998). *Civic education: What makes students learn?* New Haven: Yale University Press.
- Norman, C.D., & Skinner, H.A.(2006). eHealth Literacy: Essential Skills for Consumer Health in a Networked World. *Journal of Medical Internet Research*, 8(2), 1-10.

- Nutbeam, D. (2008). The evolving concept of health literacy. *Social Science & Medicine*, 67, 2072–2078.
- OECD. (2000). Trust in Government: Ethics measures in OECD countries. Available: <http://www.oecd.org/gov/ethics/48994450.pdf>
- Ormshaw, M.J., Paakkari, L.T., & Kannas, L.K. (2013). Measuring child and adolescent health literacy: a systematic review of literature. *Health Education*, 113(5), 433-455.
- Parent, M., Vandebeek, C.A., & Gemino, A.C. (2005). Building citizen trust through e-government. *Government Information Quarterly*, 22, 720–736.
- Pasek, J., Kenski, K., Romer, D., & Jamieson, K. H. (2006). America's youth and community engagement how use of mass media is related to civic activity and political awareness in 14-to 22-Year-Olds. *Communication Research*, 33(3), 115-135.
- Patton, M.Q. (2002). *Qualitative research and evaluative methods* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage.
- Perez, E., & Prokupecx, S. (2015). U.S. data hack may be 4 times larger than the government originally said. *CNN*. Available: <http://www.cnn.com/2015/06/22/politics/opm-hack-18-milliion/>
- Piaget, J., & Inhelder, B. (1969). *The psychology of the child*. New York: Basic Books.
- Prensky, 2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1-6.
- Prospective Grant of Exclusive Trademark/Service Mark License for Best Bones Forever! Campaign Marks. 79 Fed. Reg. 21935 (April 18, 2014) (Notices).

- Rainie, L., Estabrook, L., Witt, E. (2007). Information searches that solve problems: How people use the internet, libraries and government agencies when they need help. *Pew Internet & American Life Project*. Available: [http://www.pewinternet.org/files/old-media/Files/Reports/2007/Pew\\_UI\\_LibrariesReport.pdf.pdf](http://www.pewinternet.org/files/old-media/Files/Reports/2007/Pew_UI_LibrariesReport.pdf.pdf)
- Rice, R. E., McCreddie, M., & Chang, S. L. (2001). *Accessing and browsing information and communication*. Cambridge, MA: MIT Press.
- Richards, L. (2009). *Handling Qualitative Data: A Practical Guide* (2<sup>nd</sup> ed.). New York, NY: Sage Publications.
- Rieh, S. Y., & Belkin, N. J. (1998). Understanding judgment of information quality and cognitive authority in the WWW. In *Proceedings of the 61st annual meeting of the American society for information science* (Vol. 35, pp. 279-289).
- Rieh, S.Y. (2002). Judgment of information quality and cognitive authority in the web. *Journal of the American Society of Information Science and Technology*, 53(2), 145-161.
- Rieh, S.Y. and Hilligoss, B. (2008), "College students' credibility judgments in the information seeking process", in Metzger, M.J. and Flanagin, A.J. (Eds), *Digital Media, Youth, and Credibility*, The MIT Press, Cambridge, MA, pp. 49-72.
- Sapiro, V. (2004). Not your parents' political socialization: Introduction for a new generation. *Annual Review of Political Science*, 7, 1-23.
- Savolainen, R. (1995). Everyday life information seeking: Approaching information



- seeking in the context of "way of life." *Library & Information Science Research*, 17, 259-294.
- Schillinger, D. (2001). Improving the quality of chronic disease management for populations with low functional health literacy: A call to action. *Disease Management*, 4, 103–109.
- Sears, D. O., & Valentino, N. A. (1997). Politics matters: Political events as catalysts for preadult socialization. *American Political Science Review*, 91(01), 45-65.
- Sharoni, S. (2012). e-Citizenship. *Electronic Media & Politics*, 1(8), 119-135.
- Shenton, A.K. & Dixon, P. (2004). Issues arising from youngsters' information-seeking behavior. *Library & Information Science Research*, 26(2), 177-200.
- Shuler, J.A., Jaeger, P.T., & Bertot, J.C. (2014). Editorial: E-government without government. *Government Information Quarterly*, 31(1), 1–3.
- Skopelja, E.N., Whipple, E.C., & Richwine, P. (2008). Reaching and Teaching Teens: Adolescent Health Literacy and the Internet. *Journal of Consumer Health on the Internet*, 2, 105-108.
- Smart, K., Parker, R.S., Lampert, J., & Sulo, S. (2012). Speaking up: Teens voice their health information needs. *The Journal of School Nursing*, 28(5), 379-88.
- Smith, M. L. (2010). Building institutional trust through e-government trustworthiness cues. *Information Technology & People*, 23(3), 222-246.
- Sørensen, K., Van den Broucke, S., Fullam, J, Doyle, G., Pelikan, J., Slonska, Z., & Brand, H. (2012). Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health*, 12, 80. Available: <http://www.biomedcentral.com/1471-2458/12/80>

- Spink, A. & Cole, C. (2006). Human information behavior: Integrating diverse approaches and information use. *Journal of the American Society for Information Science and Technology*, 57(1), 25–35.
- Spink, A. & Cole, C. (2001). Introduction to the special issue: Everyday life information-seeking research. *Library & Information Science Research*, 23, 301–304.
- Squiers, L., Peinado, S., Berkman, N., Boudewyns, V., & McCormack, L. (2012). The health literacy skills framework. *Journal of Health Communication: International Perspectives*, 17(sup3), 30-54.
- St. Jean, B., Subramaniam, M., Taylor, N.G., Follman, R., Kodama, C., & Casciotti, D. (2015). The influence of positive hypothesis testing on youths' online health-related information seeking. *New Library World*, 116(3/4), 136-154.
- Stokes, D.E. (1962). Popular evaluations of government: an empirical assessment. In H. Cleveland & H.D. Lasswell (Eds.), *Ethics and Bigness: Scientific, Academic, Religious, Political, and Military* (pp. 61–72). New York: Harper.
- Subramaniam, M., St. Jean, B., Casciotti, D., Taylor, N.G., Follman, R., Kodama, C., & Ambrosini, F. (2014). Project description. *HackHealth*. Available: <http://hackhealth.umd.edu/about-us/projectdescription/>
- Subramaniam, M., St. Jean, B., Taylor, N.G., Follman, R., Kodama, C., & Casciotti, D. (2015a). Bit by bit: Using design-based research to improve young peoples' health literacy. *JMIR Research Protocols*, 4(2), e62.
- Subramaniam, M., Taylor, N.G., St. Jean, B., Follman, R., Kodama, C. & Casciotti,

- D. (2015b). As simple as that?: Tween credibility assessment in a complex online world. *Journal of Documentation*, 71(3), 550-571.
- Sundar, S. S. (2008). The MAIN Model: A heuristic approach to understanding technology effects on credibility. In M. J. Metzger & A. J. Flanagin (Eds.), *Digital Media, Youth, and Credibility* (pp. 73-100). Cambridge, MA: The MIT Press.
- Tammivaara, J. & Enright, D.S. (1986). On eliciting information: Dialogues with child informants. *Anthropology & Education Quarterly*, 17(4), 219-238.
- Taylor, N.G., Gorham, U., Lincoln, R., Jaeger, P.T., Bertot, J.C., & Larson, E. (2014). The circular continuum of agencies, public libraries, and users: A model of e-government in practice. *Government Information Quarterly*, 1(Supp. 1), p. S18-S25.
- Thomas, C. W. (1998). Maintaining and Restoring Public Trust in Government Agencies and their Employees. *Administration and Society*, 30(2), 166-193.
- Thompson, K., Jaeger, P.T., Taylor, N.G., Subramaniam, M., & Bertot, J.C. (2014). *Digital literacy, digital inclusion, policies and libraries*. Lanham, MD: Rowman & Littlefield.
- Todd, R.J. (2003). Adolescents of the information age: Patterns of information seeking and use, and implications for information professionals. *School Libraries Worldwide*, 9(2), 27-46.
- Tolbert, C.J. & Mossberger, K. (2006). The effects of e-government on trust and confidence in government. *Public Administration Review*, 66(3), 354-369.
- Toregas, C. (2001). The politics of e-gov: The upcoming struggle for redefining civic

- engagement. *National Civic Review*, 90(3), 235–240.
- Torney-Purta, J. Barber, W.K. & Richardson, C.H. (2004). Trust in government-related institutions and civic engagement among adolescents: Analysis of five countries from the IEA civic education study. *Circle Working Paper 17*. Available: <http://files.eric.ed.gov/fulltext/ED484045.pdf>
- Twenge, J.M., Campbell, W.K., & Carter, N.T. (2014). Declines in trust in others and confidence in institutions among American adults and late adolescents, 1972–2012. *Psychological Science*, (25)10, 1914-1923.
- Uslaner, EM M. (2002). *Moral Foundations of Trust*. New York: Cambridge University Press.
- Vanderschantz, N., Hinze, A., & Cunningham, S.J. (2014) “Sometimes the Internet reads the question wrong”: children’s search strategies & difficulties. Presented at *77th ASIS&T Annual Meeting*, October 31-November 4, 2014, Seattle, WA.
- von Wagner C., Steptoe, A., Wolf, M.S., & Wardle, J. (2009). Health literacy and health actions: A review and a framework from health psychology. *Health Education Behavior*, 36, 860– 877.
- Wang, S.-K., Hsu, H.-Y., Campbell, T., Coster, D. & Longhurst, M. (2014). An investigation of middle school science teachers and students use of technology inside and outside of classrooms: Considering whether digital natives are more technology savvy than their teachers. *Educational Technology Research & Development*, 62(6), 637-662.
- Welch, E.W., & Hinnant, C.C. (2003). Internet use, transparency, and interactivity

- effects on trust in government. Proceedings of the 36th Hawaii International Conference on System Sciences (HICSS'03).
- Welch, E. W., Hinnant, C. C., & Moon, M. J. (2005). Linking citizen satisfaction with e-government and trust in government. *Journal of Public Administration Research and Theory, 15*(3), 371-391.
- Wengraf, T. (2001). *Qualitative research interviewing: Biographic narrative and semi-structured methods*. New York, NY: Sage.
- Wilke, J.S., & Keith, D.J. (2004). Federal and state government web sites for children and adolescents. In P.O. Libutti (Ed.), *Digital resources and librarians* (266-272). Chicago, IL: Association of College & Research Libraries.
- Williams, J.T. (1985). Systemic influences on political trust: The importance of perceived institutional performance. *Political Methodology, 11*(1-2), 125-42.
- Wilson, T.D. (1999). Models in information behavior research. *Journal of Documentation, 55*(3), 249-270.
- Wilson, T.D. (1981). On user studies and information needs. *Journal of Documentation, 37*(1), 3-15.
- Wilson K.K. (2001). *Promoting health literacy*. Clemson, SC: Clemson University Institute on Family and Neighborhood Life.
- Wilson, T., Wiebe, J., & Hoffmann, P. (2005, October). Recognizing contextual polarity in phrase-level sentiment analysis. In *Proceedings of the conference on human language technology and empirical methods in natural language processing* (pp. 347-354). Association for Computational Linguistics.
- Wray-Lake, L., & Hart, D. (2012). Growing social inequalities in youth civic

- Engagement? evidence from the national election study. *PS*, 456-461.
- Yildiz, M. (2007). E-government research: Reviewing the literature, limitations, and ways forward. *Government Information Quarterly*, 24(3), 646-665.
- Yin, R.K. (2009). *Case study research: Design and methods* (4<sup>th</sup> ed.). Thousand Oaks, CA: Sage.
- Youniss, J., Bales, S., Christmas-Best, V., Diversi, M., McLaughlin, M., & Silbereisen, R. (2002). Youth civic engagement in the 21<sup>st</sup> century. *Journal of Research on Adolescence*, 12(1), 121–148
- Zarcadoolas C., Pleasant A., & Greer D.S. (2005). Understanding health literacy: an expanded model. *Health Promotion International*, 20(2), 195-203.