E-Governance in Urban Planning:

Use and management of websites in Puget Sound planning offices

Sarah McDaniel

A thesis

submitted in partial fulfillment of the

requirements for the degree of

Master of Urban Planning

University of Washington

2022

Committee:

Jan Whittington

Joaquín Herranz Jr.

Program Authorized to Offer Degree:

Urban Design & Planning

University of Washington

Abstract

E-Governance in Urban Planning:

Use and management of websites in Puget Sound planning offices

Sarah McDaniel

Chairs of the Supervisory Committee:

Jan Whittington

College of Built Environments

Joaquín Herranz Jr.

Evans School of Public Policy & Governance

E-governance encompasses the use of information and communication technologies in government institutions to promote e-government, e-participation. The framework of e-governance in American planning offices is not well known and there are limitations in understanding the institutional practices of e-government. The Puget Sound region of WA represents a diverse commuter-heavy region that may require additional methods of engagement other than traditional in-person forms of engagement. Therefore, this thesis looks at the following research questions: How do planners in Puget Sound region cities use websites to influence decision-making? Additionally, how do these planners manage these websites within their city? To answer this, a website evaluation tool was developed and used to evaluate three Puget Sound cities' long-range planning websites on e-government ideals. Semi-structured virtual interviews were also conducted with planners from these cities to get their perspectives on the use and management of planning websites. It was found that the planners mostly use their city websites for informational purposes and rely on external sites hosted by private companies to have website-based engagement. The planners agreed that websites have a place in planning processes, however, there is little to no policy framework that guides this.

Table of Contents

1. INTRODUCTION

There is a need to critically consider today's participation practices, as planning today relies on outdated norms that do not engage a broad audience. Those who are used and able to maneuver to the traditional modes of planning typically influence what the process looks like; frequently dominating the process (Cohen-Blankshtain and Gofen 2021). With the increasing reliance of information and communication technologies in society, there is hope they can offer opportunities to engage more people in planning. Before claiming this, it is worthwhile to investigate how planners use information and communication technologies in decision-making.

Information and communication technologies include a wide range of tools to create and share electronic forms of information. These include the internet, television, and phones that are now commonplace in most American households. A systems perspective can give a framework to understand how these exist in the government sector using the concepts of e-governance and e-government:

> *"E-Governance and e-Government are somewhat synonymous, while the terms are often used interchangeable… e-Governance is a comprehensive term with the ultimate goal of strengthening the state through responsive, inclusive, participatory and representative decision making. Conversely, E- Government refers to the use of ICTs by government agencies to improve the delivery of information and public services to its citizens through transparent and accountable means. In order for this to take place, citizens need to engage in this electronic form of governance"* (Huffman 2017, 27).

The internet is an interesting type of an information and communication technology. Governments commonly use websites to broadcast information about current affairs or initiatives, but uncommonly provide methods of interaction through websites (Lee-Geiller and Lee 2019). This goes the same for urban planning offices, that may broadcast upcoming meetings on websites, but do not use the site itself for means of engagement. Planners do not typically have the skills or clearance to directly control their websites. They may struggle to collaborate effectively with information technology personnel due to their different perspectives. These may be factors that cause hesitancy in using websites as part of the planning decision-making processes. There is also a lack of a systematic adoption and a policy framework in the use of websites for the government sector. Because websites can send out, receive, and host exchanges of information among governments and the public, they are a worthwhile information and communication technology to consider further in planning processes.

The purpose of this thesis is to explore the use and management of websites in influencing planning decisions. How do planners in Puget Sound region cities use websites to influence decision-making? Additionally, how do these planners manage these websites

within their city? To explore answers to these, this thesis focuses on a literature review that considers the current understanding of public participation in urban planning, use of e-government and e-governance practices, models to evaluate government websites, and the current e-governance policy environment. The research will collect primary data by evaluating websites of long-range planning departments in the Puget Sound region through a developed tool. Additional primary data will come from semi-structured interviews with Puget Sound planners regarding their experiences with websites. The Puget Sound region is a densely populated region of Washington State and a commuter heavy region. This region mirrors other cities with diverse demographics and needs. It also can speak to the fact that many people do not live where they work and therefore need innovative and faster modes of interacting with the government than attending meetings.

The benefit of this thesis comes from discussing a contemporary mode of engagement and how it might provide modern opportunities for democratizing the planning process. Current research on this topic focuses more on theoretical, technical, literature-based understanding of e-governance. This thesis gives a practical look at e-government practices through the research and evaluation of planning websites. This thesis also gives a practical look at e-governance strategies in American planning practice by highlighting real experiences from Puget Sound region planning offices and documenting their management of handing online content for participation.

2. LITERATURE REVIEW

Below is a literature review that focuses on topics in four themes. The first literature theme reviews e-governance to consider its definition and implementation. The second theme focuses on participation and includes selective works on public participation and e-participation. This includes common thoughts on public decision-making, participation methods, the role of public officials, user-generation of the internet, and common forms of internet-based participation. Next, the e-government theme focuses on how online participation is facilitated through government websites. The last theme looks at how to evaluate websites under e-governance ideals and the current e-governance policy framework federally and in Washington state. All these subtopics are important to get a better understanding of the overarching concept of e-governance as modeled by Huffman (2017). In their Evolutionary E-Governance 2.0 Model, they illustrate four spheres inside one another (Huffman 2017, 28). The first spear is ICT/Web2.0 and describes the technological tools available for use of information and communication technologies. The second spear is e-Government, which represents the implementation of ICT/Web2.0 in government operations. Next, the e-Participation sphere represents the democratic practice of ICT/Web2.0 in government operations. Finally, and incorporating all of these spheres, is the e-Governance sphere. This is the broad representation of all the spheres before it with the goal of “good governance” (Huffman 2017, 28).

2.1 E-Governance

The definition of governance itself is "the way that organizations or countries are managed at the highest level, and the systems for doing this" (Cambridge Advanced Learner's Dictionary & Thesaurus n.d.). E-governance mixes together electronic information, communications with government agency personnel, transactions, and general governance (Brenman and Sanchez 2012, 118). Dawes (2008) highlights that since the 1990s, people use technology increasingly to communicate with governments, crossing the traditional boundaries that governing institutions use. They further lay out five objectives of e-governance: a policy framework, enhanced public services, high quality and cost-effective government operations, citizen engagement in democratic processes, and administration and institutional reform (Dawes 2008, S87). It is necessary to highlight the importance of the social aspects of e-governance:

> *"The major factors that determine the promotion of user access to e-services are the willingness and mindsets of the stakeholders to adopt the behavioural changes brought about by e-governance. The issues related to privacy, lack of trust, security, and socio-cultural practices are the main factors limiting the usage of e-governance services, leading to the failure of many e-governance systems"* (Bindu, Sankar, and Kumar 2019, 395).

There are some studies on the adoption, policy, and implementation development of e-governance in American cities. One finds that the least progress in e-governance work is on promoting democracy and administrative/institutional reform (Dawes 2008, S94). Mejier & Bolivar (2016) argue there is a fragmentation in policy regarding management, governance, and technology. They conclude that smart city governance, cities that utilize technologies for performance and evaluation, requires institutional change and is inherently political (Meijer and Bolívar 2016). This gives the possibility for shifting democratic processes online but requires attention to personnel and policy elements of government management.

2.2 Public Participation

There is an increasing expectation for the role of public participation in decision-making in urban planning. American urban planning historically has used a rational and systems based approach that focused on the skills of planners to make effective decisions (Mandarano, Meenar, and Steins 2010, 123). A rapid shift in theory and practice regulations brings the current expectation that public participation needs to be an important part of the planning process (Mandarano, Meenar, and Steins 2010, 124). Fung (2006) believes that public participation, in a democracy, can address failures of legitimacy, justice, effectiveness in representative and bureaucratic institutions. They model a democracy cube to show the tradeoffs of different participatory designs. The democracy cube has three axes: authority and power, participants, and communication and decision mode. Each axis has an increasing level of practice that represents the ultimate end point of that axis. Modes of participation are placed on the democracy cube and judged on each

axis. Using their model, the author concludes that “no single participatory design is suited to serving all three values simultaneously; particular designs are suited to specific objectives” (Fung 2006, 76). Similar to the reality that no participation type is a perfect uplifter of democratic values and requires leaders to think of the specific objectives they want to meet, Bryson et al. (2013) argue that administrators do not have a good understanding of how to design participation processes to achieve design outcomes. They conclude that participation process designers have a considerable amount of things to consider given the participation’s purpose, goals, constraints, stakeholders, and the possible techniques that are available (Bryson et al. 2013, 31).

As a framework to understand participation opportunities in planning, Arnstein (2019) classifies different levels of participation based on their power to influence outcomes in planning as a metaphorical ladder. Using this metaphor, the bottom ladder step describes the level of participation that has the least amount to influence decision-making and gradually increases to a top ladder step that has the highest amount of influence. Under the classification of “nonparticipation” are the first two degrees, or ladder of steps, of manipulation and therapy. Next is the classification “tokenism” which are the degrees informing, consultation, and placation. Lastly, Arnstein classifies “citizen control” as the degrees of partnership, delegation, and the final highest form of influential power: citizen control. When planners start new initiatives that the public should know about, they consider what level of influence they want the public to have on it and build appropriate engagement plans that will seek that type of input. There is inherent tension between the public and those that have ultimate authority over planning decisions because it is typically the authority of planners to initiate a power share; something that especially causes issues with those already marginalized in society (Arnstein 2019, 24).

Brody, Godschalk, and Burby (2003) considers how mandates affect public participation in the planning process and finds they do not have a significant effect on participation and require more attention to incentives, enforcement style, and emphasizing need for participation from planners. They also find that types of input avenues have a great impact on participation, with two-way exchange of information resulting in the most activity (Brody, Godschalk, and Burby 2003). This sets an understanding that planners actively choose which level of control they want to allow residents to have in decision-making as well as the responsibility of initiating participation relationships.

Issues of today’s participatory planning are felt by residents and ignored by planners:

> *It is time to face facts we know, but prefer to ignore. Legally required methods of public participation in government decision making in the US—public hearings, review and comment procedures in particular—do not work. They do not achieve genuine participation in planning or other decisions; they do not satisfy members of the public that they are being heard; they seldom can be said to improve the decisions that agencies and public officials make; and they do not incorporate a broad spectrum of the*

> *public. Worse yet, these methods often antagonize the members of the public who do try to work with them… Most often these methods discourage busy and thoughtful individuals from wasting their time going through what appear to be nothing more than rituals designed to satisfy legal requirements. They also increase the ambivalence of planners and other public officials about hearing from the public at all. Nonetheless, these methods have an almost sacred quality to them, and they stay in place despite all that everyone knows is wrong with them"* (Innes and Booher 2004, 419).

Innes & Booher (2004) go on to argue that effective collaborative participation methods are not reactive, but anticipate and define future actions and involve individuals, organized interests, non profit organizations, and for profit organizations. Recognizing that participation gives planners insight into the public desires, allows planners to collect additional knowledge of a decision, gives a sense of fairness in planning, allows planners to claim legitimacy on their final decisions, and is a regulatory necessity, they propose an additional purpose to collaboration: building civil society and fostering the adaptability and ability to address problems (Innes and Booher 2004, 423).

The main argument of the book *Planning as if People Matter: Governing for Social Equity* by Marc Brenman and Thomas Sanchez is that public administrators and planners, particularly in America, need to reconsider governance processes to be more effective (Brenman and Sanchez 2012). The author's describe the problem as citizens are not able to trust their government and know why or how to participate. They argue that governments need to create stronger networks of communication between levels of planning and be vigilant in keeping continued engagement with their constituents. Brenman and Sanchez (2012) argue that the role of public administrators and planners is to constantly consider inclusive governing practices.

> *"Inclusion is a process and a goal of addressing and responding to the diversity of needs of all people through increasing participation in infrastructure, cultures, and communities, and reducing exclusion from services. Inclusion describes the way an organization configures opportunity, interaction, communication, information, and decision making to use the potential of diversity"* (Brenman and Sanchez 2012, 66).

Cohen-Blankshtain & Cofen (2021) consider the participation of those who frequently engage in planning processes. They find that serial participation better equips the public for bottom-up politics, fosters co-production of planning, and has a modest influence on outcomes. As members of a community engage together over sustained periods of time, they build a base of deliberation, power, and knowledge that can influence others to get involved. Those who frequently participate can act as mediators from planners to the non-frequently participating public as well as influence the ways that planners engage in the future. Planners also receive benefits from having the public engage in a repetitive manner, as they receive historical perspectives of the community they plan and can better utilize the social capital of a more informed constituent base (Cohen-Blankshtain and Gofen 2021, 11).

2.3 E-Participation

One way to consider participation that sustains inclusive engagement is through information and communication technologies. Kleinhans, Van Ham, and Evans-Cowley (2015) explore the use of social media and other mobile technology strategies to address issues of public participation in city planning. They understand that planning today relies on norms set from the 1960s and rely on in-person engagement. Modern technologies like geographic information systems, open maps, social media, mobile communications, and even gaming allow for the public to self-organize; yet adopting them may neglect user perspective in favor of technologically-driven perspective (Kleinhans, Van Ham, and Evans-Cowley 2015, 240). Kleinhans, Van Ham, and Evans-Cowley (2015) include that online connections must also have a "real world" implication to them, through further connection and planning actions.

Echoing this, Thoneick (2021) studies the integration of online and on-site participation, using an adaption of Fung's democracy cube. They find that in-person participation allows for richer quality dialog but online participation may expand the audience. There is also a trade off in sharing perspective online versus in person:

> "*Whereas online procedures oftentimes are reduced to allowing citizens to express their preferences via online forms but not to engage over content, onsite procedures allow engagement about content but transmit preferences in their singularity as they are collected as notes, analysed on-spot by facilitators and presented in an aggregated way during the event and possibly in further reports*." (Thoneick 2021, 11).

To address these points, they suggest integrating technology with in-person participation. Digital participation should have in-person facilitation and authority through a legal framework.

There may be benefits to how technology better connects the public: "Some argue that ICTs have the potential to build social capital by strengthening connections and increasing the flow of information" (Brenman and Sanchez 2012, 130). Mandarano, Meenar, and Steins (2010) also believe the internet offers a strong foundation for building digital social capital, due to the connection of information exchange and public participation; however, admit that research on it is scarce (Mandarano, Meenar, and Steins 2010, 132). They recommend assessing how digital public participation processes fit on Arnstein's *Ladder of Public Participation*, how and who analyzes online feedback, and how effectively online input is incorporated into final plans (Mandarano, Meenar, and Steins 2010, 132).

Coe, Paquet, and Roy (2001) argue that smart communities might provide a better setting to manage various interests and that it is important to build online ecologies to share local needs. They view e-governance as an important framework to enable information technology based convergence of economic, political, and social institutions (Coe, Paquet, and Roy 2001, 92). Brenman and Sanchez (2012) highlight the potential issues that come if governments leverage online public creativity and interest:

> *"Members of political movements such as the Tea Party feel deep anger that their government has disenfranchised them, even though they are largely middle and upper class and have been the beneficiaries of a wide range of government programs. This may be an example of how ICTs do not necessarily foster a reality-based view of government services and privilege. In fact, ICTs have already been used for hateful purposes. Almost every article published on the Internet that speaks positively about race, affirmative action, diversity, and other social equity issues gathers barnacles of deep and angry criticism in its comments section. Members of hate groups are able to find like-minded souls…"*

Online ecologies and the interdependence of economic, political, and social aspects of society may present unique problems when so available through information and communication technologies.

Additionally, planning and governing with youth in mind could allow for more long-term progress: "The hope is that synergies between youth and new technologies will increase civic awareness and increase public participation" (Brenman and Sanchez 2012, 113). If information and communication technologies open the door for younger participants to engage in decision-making processes, these populations may continue to engage, influence those around them to get involved, and self-organize around issues they care about. As shown by figure 1, those who use the internet the most are aged 18-49 (Pew Research Data 2021). However, older American adults do not fall far behind.

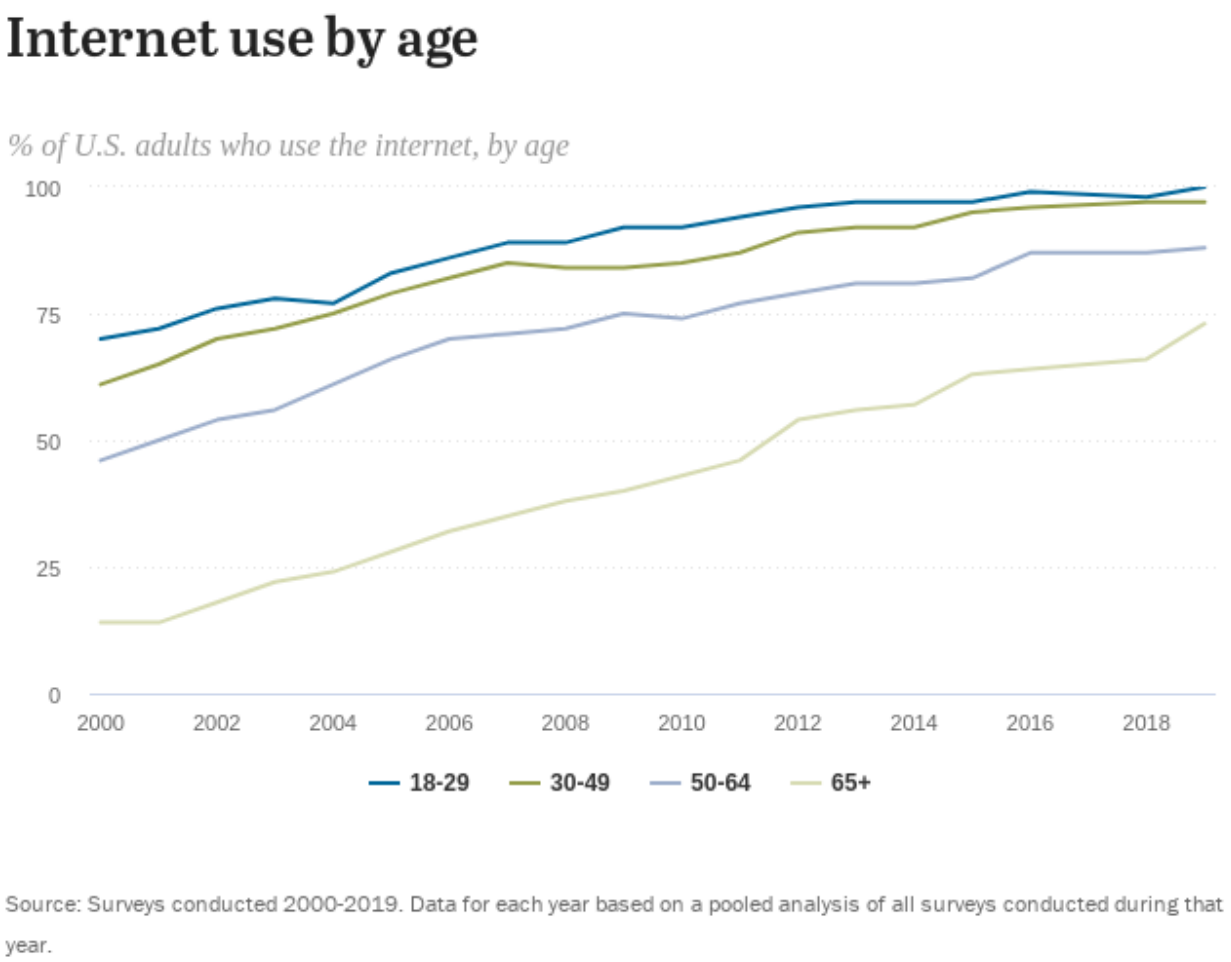

Figure 1. ***Pew Research on internet use by age (Pew Research Data 2021)***

2.4 E-Government

As the internet is an important part of daily life, it is important to consider its place in government decision-making. The internet first provided a means of storing and disseminating information to multiple users; now, it allows users to upload their own content (Mandarano, Meenar, and Steins 2010, 126). Britannica offers the following commentary of this current form of the internet:

> *"Web 2.0, term devised to differentiate the post-dotcom bubble World Wide Web with its emphasis on social networking, content generated by users, and cloud computing from that which came before. The 2.0 appellation is used in analogy with common computer software naming conventions to indicate a new, improved version. The term had its origin in the name given to a series of Web conferences, first organized by publisher Tim O'Reilly in 2004. The term's popularity waned in the 2010s as the features of Web 2.0 became ubiquitous and lost their novelty. At the first conference in 2004, the term was defined by 'the web as platform.' This, however, was augmented the following year with a still more nebulous expression incorporating the idea of democracy and user-driven content, especially as mediated by the Internet. In particular, many of the most vocal*

> *advocates of the Web 2.0 concept had an almost messianic view of harnessing social networking for business goals" (Hosch n.d.)*.

This gives light to the recent shift of user-generated content, the quick adoption by the private sector, and lack of ties to democracy. Kolsaker & Lee-Kelley (2008) consider the publics' use of e-government and e-governance strategies; they argue there is a gap in effective user design implementation and that commercial websites influence citizens' expectations of government websites. A feeling of active contribution and sense of participation in democratic process are important for citizens to feel e-governance and e-government strategies are valuable:

> *"To improve citizens' perceptions of e-government and e-governance we suggest that it needs to offer unambiguous added value over and above-offline alternatives. If governments wish to engage citizens in the process of e-democracy then decision-making needs to be much more transparent and outcomes must be meaningful"* (Kolsaker and Lee-Kelley 2008, 735).

There is a wide range of ways governments can use websites for engagement, including planning. Kaylor (2005) offers a way to categorize these elements: presence, interactive, transactional, and transformative. Transformative elements of city websites change how governments engage the public and can include: E-meetings, conversation forums, online surveys/polls, streaming content from meetings, listservs, visualization techniques, and consultation techniques (Kaylor 2005, 13). After evaluating American city government websites in the early 2000s, they found a significant increase in the information present online but little participation opportunities (Kaylor 2005, 4). They believe this pattern is similar to the private sectors' adoption of the internet. However, they give a reminder to the distinction between using websites as a customer of a private business compared to as a constituent of a city:

> *"As governments continue to evolve in their understanding of the needs of their constituents, we can anticipate (or at least hope for) a developing appreciation of this distinction and the unique obligation of local governments to probe the capacity of technology to change the relationship between government and citizen in ways the private sector cannot grasp"* (Kaylor 2005, 12).

Accessibility is important to consider before expecting the internet to solve issues of participation; however, there are trends that show the internet might be "colorblind" in how various populations access it (Brenman and Sanchez 2012, 129). Data confirms there is now little difference how American adults of different races/ethnicities use the internet, as seen in figure 2 (Pew Research Data 2021).

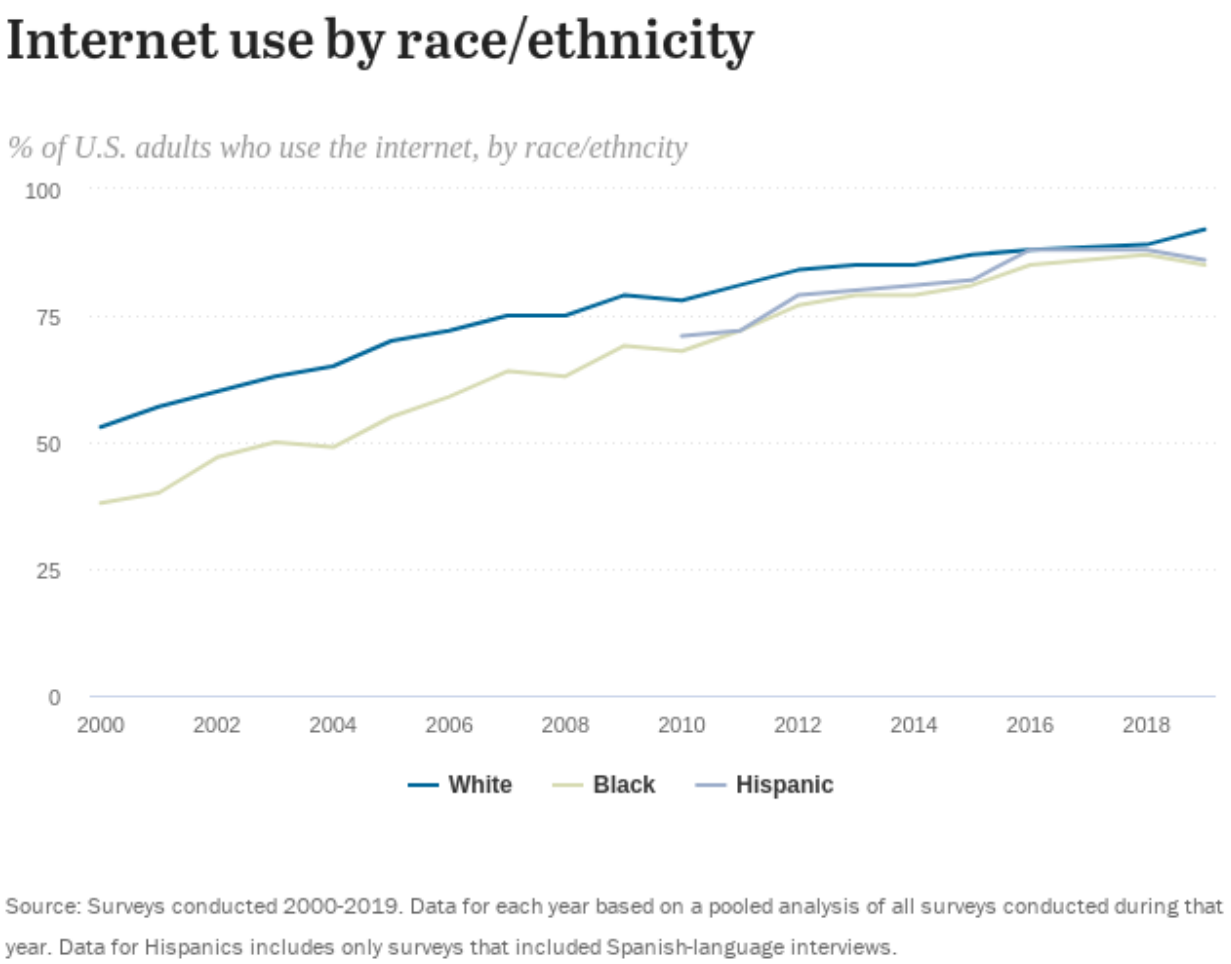

Figure 2. ***Pew Research on internet use by race/ethnicity (Pew Research Data 2021)***

Despite a supportive context to increase the use of information and communication technologies in public decision-making, American governments do not widely adopt formal policy-backed strategies for them. Public administrators have an incrementalist approach that may explain the current lack of institutional adoption of e-government strategies (Milakovich 2014, 114). Milakovich (2014) further highlights the individual struggles of technological adoption in government workforces. Differences in age, education, and backgrounds may affect how someone views and uses online forms of information and communication technologies that make institutional adoption of e-governance difficult. The author makes the point that to effectively utilize new and rapidly changing technology: "Bureaucrats may be forced to streamline data collection processes, change internal structures, and re-organize external relationships among organizations" (Milakovich 2014, 114). Early on, governments mostly adopted concepts from the private sector, such as Customer Relationship Management (CRM) and Total Quality Management (TQM) (Milakovich 2014, 110). This may continue the lack of identity for government sector electronic forms of governance.

Another possible reason for unrealized e-government strategies is the potential increase in participants and the input they could produce. Milakovich (2014) suggests taking advantage of big data and data mining in collaboration with private sector contracts to efficiently handle large amounts of data processing (Milakovich 2014, 115). However, they caution against how governments typically handle these collaborations, which put a lot of dependence on the private sector and neglects "comprehensive collaborative performance management strategies" (Milakovich 2014, 115). Cities may put public data at risk by using external parties to handle website engagement, especially if in place without clear standards. According to a group that studied the contracts with the City of Seattle: "relatively few vendor contracts made guarantees around the privacy or security of resident or employee data" (Whittington et al. 2015, 1947). Whittington et al. (2015) finds that data privacy with external parties may be neglected and varies depending on the external party. They suggest cities set clearer and stricter terms in how vendors work with public data and act as "market makers" with their power to set widespread standards (Whittington et al. 2015, 1954).

2.5 Evaluating Government Websites

Websites, one medium of information and communication technology, have a role in facilitating e-governance strategies. It is important to consider how it facilitates e-governance strategies as well as implementation issues. Evaluating websites typically comes from the concept of user experience, which focuses on how the technical aspects of websites promote certain interactions with a product or service (Usability.gov 2014). This focus on user perspective neglects broader goals of democracy and informed constituencies. There is research specifically on the evaluation of e-government, starting recently since the early 2010s. Irawan & Hidayat (2022) reviews these previous models of evaluation for government websites before developing their own. Below, table 1, is a summary of the models they reviewed, their authors, and the metrics the model focuses on.

Karkin & Janssen (2014)	**Karkin and Janssen (2014)**	**Fan (2011)**	**Holzer & Manoharan (2016)**	**Fietkiewicz et al. (2017)**	**Lee-Geiller & Lee (2019)**	**Irawan & Hidayat (2022)**
Content	Content	E-Content	Content	Information	-	Content
Privacy / Security	-	Privacy / Security	Privacy / Security	-	-	
Usability	Usability	Usability	Usability		-	Compatibility
-		E-Services	Services	Transaction	-	
Quality	Quality	-	-	-	Service Quality	Errors Standards

Accessibility	Accessibility	-	-	-	-	Accessibility
-	Dialog	-	-	Communication	-	Communication
-	Transparency	-	-	-	Transparency	Transparency
-	Responsiveness	-	-	-	-	
Citizen Engagement	Citizen Engagement	E-participation	Citizen & social engagement	Participation	Citizen engagement	
-	Balancing of interest		-	-	-	
-	-	Feedback on website	-	-	-	
-	-	-	-	Integration	-	

Table 1. ***Comparison of website evaluation model metrics from Irawan and Hidayat's (2022) article, compiled by similar metric. Highlighted metrics are identified as more democratic and unhighlighted are more technical.***

These models vary in the metrics they use and are grouped in rows of similar metrics. There is a common use of the engagement and participation metric. Below, table 2, is an aggregated list of the above models' variables according to each similar metric grouping from table 1.

Metric	**Variables**
Content / E-Content / Information	● Contact details ● Online publications ● Directory of other government services ● Directory of local services ● Multimedia material ● Access to current accurate information ● Public documents ● Reports ● Publications ● Multimedia materials ● Is a press release available? ● Is basic information available? ● Is the information on healthcare available? ● Is the information on politics available? ● Is the information on services available? ● Are forms for services available?

	• Is the information for various user groups available? • Is the website accessible via smartphones? • Are applications for smartphones available? • Are push services available? • Is the website available in English? • Is the website available in the languages of the three most important immigrant groups? • Categorization • In Search Feature • Basic Information • Information of Services • Security/Privacy (on PPID website)
Privacy / Security	• Privacy policy • Security policy • Privacy policies • Authentication • Encryption • Data management • Cookies
Usability / Compatibility	• Ease of use web page design • Searching capabilities • Multilingualism • Disability access • Links to external websites • User-friendly design • Branding • Length of homepage • Targeted audience links or channels • Site search capabilities • Ratio of pages with usability issues • Broken links (ration of erroneous links in percentage) • Percentage of compatibility issues
Services / E-Services / Transaction	• Online registration • Online request for services • Online application for permit • Online library services • E-tendering system • Online payment of rates and fees • E-procurement • Transactional services—purchase or register • Interaction between citizens businesses and government • Is it possible to fill out forms online? • Is it possible to pay taxes online? • Is it possible to pay penalties online?

	• Is it possible to pay fees online? • Are services for libraries available? • Is a personalized portal available?
Quality / Service Quality / Errors / Standards	• Coordination at the national level • Accuracy • Navigation structure • Content organization • Visual element • Processing capacity • Error management • Website guidelines for citizens to use • Terms of use statement • Privacy • Safety • Update range (daily average) • Visual elements • Online transactions • Website layout (the W3C css level 3 / number of errors) • Percentage of Broken Links • Percentage of pages that do not comply with W3C Standards
Accessibility	• The ratio of number of problems • Percentage of Accessibility issues (in line with WCAG 2.0 Guidelines)
Dialog / Communication	• Are social media services used? • Is it possible to make appointments with authority via the web? • Do I get answers to email requests? • Is emailing possible instead of written (snail) mail? • Is it possible to leave feedback or complaints? • The presence of tools to capture online comments • Social media • Online chat • Email address • Hotline
Transparency	• Non-discriminatory • Open license • Free of charge • Non-proprietary • System availability • Alternative channels • SNS/smartphone • Types of information • Quality of information • Disclosure of public documents • Links to PPID on Portal web

	• Availability of Last Financial Reports • Whistleblower links
Responsiveness	• The time it takes to receive a response
Citizen Engagement / E-Participation / Citizen & Social Engagement / Participation	• FAQ • Submit comments online to councillors • Submit comments online to management • Online consultation with councillors • Online consultation with management • Voting online • Online civic engagement/policy deliberation • Social media applications • Citizen-based performance measurement • Are online questionnaires available? • Do forums and platforms for asking questions exist? • Is it possible to participate in a community meeting via the WWW? • Is it possible to vote online? • Responsiveness to inquiry/complaints • Direct communication with elected government officials • Encouragement/promotion of participation • Sharing the products and outcomes created through Collaboration • Deliberation • Collaboration • The presence of tools to stimulate citizen input to public policy (Web 2.0 tools)
Balancing of Interests	• Provision of announcements of information or updates to the general advantage of citizens
Feedback on Website	• Ability to report problems/deficiencies in the website • Ability to request inclusion of facilities in the website
Integration	• Is an entry homepage available? • Email: Cooperation with authorities? • Software/safety measure/intranet/database?

Table 2. ***Comparison of website evaluation model variables from Irawan and Hidayat's (2022) article, compiled by similar metric.***

Some of the variables are listed as questions, concepts, measurable attributes, or themes; depending on how the authors listed the info in their model. An important aspect of all these models' variables is the distinction between using websites as just hosts of information and the need for analyzing how people can directly interact with their government through a website. They mention comment boxes, online voting, online consultations, questionnaires, forums, and other general tools as facilitating online

engagement. These more interactive variables are important to consider for an evaluation model of urban planning websites.

The model by Irawan & Hidayat (2022) split metrics into considerations of technical and democratic deliberation. For technical, they consider more usability based metrics like errors and compatibility. Under democratic deliberation, they consider the content, transparency, and communication of a government's website (Irawan and Hidayat 2022, 462). While past models inform this Irawan & Hidayat (2022) model, it is noteworthy there is no metric specifically for engagement or participation. Looking more into the second Karkin and Janssen (2014) model, of Irawan & Hidayat' (2022) compilation, focuses on more democratic metrics; such as citizen engagement, responsiveness, and dialog (Karkin and Janssen 2014, 358). This may be a more appropriate model to base e-governance evaluation on for planning purposes.

Another model of Irawan & Hidayat' (2022) compilation that deserves a closer look is Lee-Geiller & Lee (2019). They consider the use of websites in effectively serving democratic ideals. In their research, they identify three features important to evaluate government websites on the concept of e-governance; these are: transparency, service quality, and citizen engagement (Lee-Geiller and Lee 2019, 220). Through their work of developing a framework for how government websites promote democratic governance, they believe that government websites should facilitate deliberation and co-production. Their model considers the relationship between democratization of e-governance and degrees of interaction. Asymmetric one-way democratic interaction is considered the lowest form and symmetric co-production is considered the highest form (Lee-Geiller and Lee 2019, 221).

To update their evaluation after the start of the COVID-19 pandemic, Lee, Lee-Geiller, and Lee (2021) reevaluated their website based e-governance evaluative framework. They believe that government websites remain an increasing priority for the public but not so for governments. They comment on the neglect of government websites, despite them being a popular mode of communication with the public:

> *"While this may have resulted from a low perception of the necessity for improvement, at the practical level, the lack of adequate guidelines for design and operations that are customized to government websites may leave practitioners dependent on external expertise that is mostly informed by non-public viewpoints. This creates a gap between the expectations and the effectiveness of e-government initiatives" (Lee, Lee-Geiller, and Lee 2021, 1)*.

They added to their 2019 model the metrics of information suitability and security (Lee, Lee-Geiller, and Lee 2021, 5). Below, table 3, is a table of their refined scale.

FACTOR	**ITEMS**
Transparency	• Disclosure of periodical performance reports

	• Disclosure of periodical activity reports • Publication of reports and activities of ethical boards • Website provides links to watch live broadcasting of the assembly and meetings
Information Suitability	• The intentions of the citizens like me using website is well considered • Website provides services that are customized for individual citizens • Recent information is provided in a timely manner • Website offers useful information for my needs • Information provided is appropriately detailed
Service Quality	• Pages load quickly • File downloading is processed quickly • Search functions work effectively • Website appears consistently on different web browsers • Website's structure is clear and easy to follow • Information and services are organized by categories
Security	• Personal data is used only for the necessary reasons • Personal data is archived securely • Website is safe to use • Personal data provided for authentication is used only for its purposes • Website requires only necessary personal information
Citizen Engagement	• Website contains tools to sort ideas and solutions through online voting and ranking tools • Website employs tools designed for collecting opinions to be included in the decision-making processes • Website facilitates the dialog with tools for making comments online • Website carries out questionnaires and policy forums regarding public issues to come up with effective solutions • Website provides tools for citizens to partake in government's performance assessment

Table 3. ***Updated Democratic E-governance Website Evaluation Model (Lee, Lee-Geiller, and Lee 2021, 7)***

2.6 Current Administrative Framework

Currently, the American landscape for the acknowledgement and direction of e-governance priorities appear weak. In the State of Washington, there is little documented direction in intentional e-government or e-governance initiatives. However, there is an institutional framework to help integrate information and communication technologies in government work. In 2017, Washington State created Washington Technology Solutions (WaTech). This agency eventually merged the Department of Information Services (DIS), the Office of the Chief Information Officer (OCIO), the enterprise applications division of the Department of Enterprise Services (DES), and the state Office of Cybersecurity (OCS) (WaTech n.d.). WaTech focuses on providing central network, data center, and cybersecurity services for state agencies, counties, cities, tribal governments, and public-benefit nonprofits (WaTech n.d.).

Federally, the White House has an Office of E-Government and Information Technology, headed by the Federal Government's Chief Information Officer (The White House n.d.). This office comes at a realization of the lack of technological direction for government use:

> *"Information technology (IT) advancements have been at the center of a transformation in how the private sector operates—and revolutionized the efficiency, convenience, and effectiveness with which it serves its customers. The Federal Government largely has missed out on that transformation due to poor management of technology investments, with IT projects too often costing hundreds of millions of dollars more than they should, taking years longer than necessary to deploy, and delivering technologies that are obsolete by the time they are completed. We are working to close the resulting gap between the best performing private sector organizations and the federal government"* (The White House n.d.).

This office appears during the Obama administration, as seen first on his archived White House website, and survived through the Donald Trump administration to today's Biden administration. The office's website features reports and documents about the topic, however there is little interaction with it or further information to explore.

While not part of the George W. Bush administration's archived White House website, the legislative branch gave considerable attention given to the matter during his administration. The E-Government Act of 2002 established the Office of Management and Budget's Federal Chief Information Officer and laid out "a broad framework of measures that require using Internet-based information technology to enhance citizen access to Government information and services" (*E-Government Act of 2002* 2002). One of the provisions for this act specifically mentions using information technology to increase citizen participation in government. This is used as a guiding principle for funding priorities and regulations. The act is in Title 44 Public Printing and Documents section of the US Code. Currently, the most recent implementation report that exists is for the 2016 fiscal year (Office of Management and Budget 2017). In this report there are two interesting sections:

initiatives and workforce training policies. For initiatives, they highlight the progress made for open source, data center optimization, cybersecurity, and open government. For workforce training policies, it focuses on cybersecurity. Two additional acts came into effect because of the E-Government Act of 2002: the Federal Information Security Management Act and the Confidential Information Protection and Statistical Efficiency Act.

2.7 Conclusion

There is a need to consider participation in planning that is inclusive, sustained, utilizes technology, and promotes online community building. Planners have a responsibility for this, as it is on them to be more intentional with their participation designs, objectives, and motivations to the public. Planners also need to more frequently admit their lack of ability to effectively design participation for ideal design outcomes. There are inherent tensions in how planners share power and who can influence decision-making in planning processes. There is a possibility for more meaningful participation through the use of information and communication technologies; known as e-participation. When adopted by government offices this is known as e-government and can be organized under an e-governance framework. Currently, websites are underutilized for public decision-making and are not seen as significant to democratic processes. E-participation efforts fall short and websites are typically just online sources of information that do not engage the public. The use of information and communication technologies may help address today's issues of inclusive planning by increasing social capital amongst communities as well as allowing for more transparent decision-making. The internet is commonly used among the general public and there does not appear to be a race, ethnicity, or age gap that would prompt accessibility issues. However, there are issues to consider when implementing e-governance strategies. Security, technology management, and culture surrounding technology adoption are all issues that currently make information and communication technologies lack policy frameworks for government decision-making. While currently underutilized, the promises of e-governance make it a worthwhile topic to look further into, specifically for urban planning decision-making.

3. METHODS

The research for my thesis sought to understand the distribution of current website use and divergence among planning offices. There were two stages of data collection for this thesis. First, I developed an evaluation tool backed by literature on previous models of evaluating government websites to evaluate the cities' planning websites. See appendix A for the entire tool. This tool guided a standard evaluation for each cities' performance on their ability to inform, engage, and refer their residents on planning matters. It also documented the transparency and quality elements of these websites. Second, I held semi-structured virtual interviews with urban planners from the cities to learn their experience and attitudes of using websites for participation. I created three themes to organize the interview questions, based on a combination of my understanding of

e-governance and the gaps in research: current usage of websites, the processing systems of web-based participation input, and the organization to carry out website management. See appendix B for the structured questions and the themes they fall under. I developed these themes to capture more comprehensive data on the process of hosting opportunities for online engagement, from inception to management.

These methods were selected to address the research questions:

1. How do planners in Puget Sound region cities use websites to influence decision-making?
2. How do planners in Puget Sound region cities manage websites within their city?

3.1 Justification

I chose to focus on long-range planning offices because short-range planning inherently does not have many, if any, initiatives that seek broader community input. I picked the Puget Sound region of Washington state to focus on due to it being the most populated part of the state. It is also a region where most people commute for daily life, which I believe is an interesting context to consider for the use of more convenient innovative forms of participation. I selected cities in this region partly based on variation in assumed capacity of their planning offices, informed by their populations. Therefore, Seattle is considered as having a large capacity with about 700,000 people (US Census Bureau n.d.), Bellevue medium capacity with about 150,000 people (US Census Bureau n.d.), and Des Moines with about 30,000 people (US Census Bureau n.d.). Due to issues with finding a final city, I picked Bellevue after being introduced to the planning team through a class project. This meant I visited their website beforehand and was slightly aware of how their planners use websites before my research started.

3.2 Limitations

There are limitations of my methodology that affects its ability to generalize for all urban planning offices, even those in just the Puget Sound. For one, there is selection bias in my choice of cities to study, as I intentionally wanted a population difference among my sample. The sample size of only three cities also limits the generalization of my thesis conclusions. My time constraint of the thesis is the main reason for this selection bias, as randomly selecting a sizable sample from all Puget Sound cities would have taken me too long. There is also a high likelihood for data selection bias from the use of semi-structured interviews and each interview having slight variations in questions. My own personal assumptions probably led to leading questions, as I had assumptions about this topic going into the interviews. Given these limitations, I believe my thesis research is still a useful exploration of the topic that currently does not have many practical planning perspectives.

3.3 Website Evaluation

To evaluate planning offices' websites, I developed a website evaluation tool to allow me to document a comparative experience between the different cities. I evaluated each city based on five metrics of e-government I developed. Government websites tend to be more informative than directly engaging, as told from Lee-Geiller and Lee (2019) and others, so I created an evaluation for planning websites to focus on the democratic ideals of a website user experience. My list is also supported by the review of e-government evaluation models by Irawan & Hidayat (2022) and their own model. All the models I looked at showed the importance of considering the content shared on websites, the tools used to directly engage users, connection to social media, signs of transparency, the technical usability of websites, and their overall technical quality. The models I looked at were not specific to urban planning offices, and they did not consider the use of external sites that are common with consultants of urban planning initiatives. Therefore, I added this to the evaluation in the referring section. I based the website evaluation on the web pages for specific initiatives listed on the city's long-range planning website, because these usually have an engagement component to them. This allowed me to better isolate how the websites are used for engagement in public decision-making matters. For the purpose of this thesis, initiatives and projects are used synonymously.

I evaluated each metric of e-government using a series of indicators, explained below:

- Informing was evaluated on what provides general information to the public to have an understanding of current initiatives of a planning office.
    - Indicator 1: List of initiatives
    - Indicator 2: Background information
    - Indicator 3: Schedule information
    - Indicator 4: Planner contact information
- Engagement was evaluated based on the city's call for participation on their initiative web pages.
    - Indicator 1: Goals, expectations
    - Indicator 2: Comment boxes
    - Indicator 3: Questionnaires
    - Indicator 4: Online GIS maps
    - Indicator 5: Citizen consultation sign up
    - Indicator 6: Simulation tools
    - Indicator 7: Forums
    - Indicator 8: Notice of next steps
- Referring was evaluated based on the use of external associations; from consultant information, external websites. or social media that engage the public off of the city's government planning website.
    - Indicator 1: Partner information
    - Indicator 2: External initiative site(s)
    - Indicator 3: External social media site(s)

- Transparency was evaluated on what gives a sense of being able to identify and access previous information on an initiative's decision and any relevant documents.
    - Indicator 1: Availability of past engagement info
    - Indicator 2: Upcoming meeting information
    - Indicator 3: Past meeting information
    - Indicator 4: Meeting materials
    - Indicator 5: Legal framework
- Quality was evaluated based on the more technical details of a website that give a feeling of basic website usability.
    - Indicator 1: Consistent layouts
    - Indicator 2: Working links
    - Indicator 3: Everything loads on pages
    - Indicator 4: No dead sites
    - Indicator 5: Mobile usability
    - Indicator 6: Updated information
    - Indicator 7: Site map

I evaluated each indicator qualitatively so I could take running notes during the process. One of the cities had many initiatives and I used tallies to keep track of the instances of various indicators in order to give a more accurate ranking of its metrics later. See Appendix D for this tally county. At the end of all the website evaluations, I gave each metric either a low, medium, or high rating based on the performance of each indicator compared to the other cities. As mentioned, the cities have some variability in the number of initiatives they have. I evaluated the City of Des Moines on all the initiative pages listed on their website. For the City of Bellevue and Seattle, I evaluated those that are specifically called out as being current; this means I did not evaluate any initiatives they organized as past or complete and in separate listings on their city website.

After ranking all the cities' metrics individually, I gave a first, second, or third place based on an aggregate of their metric performance. I did this by seeing which city had the most highs and comparing the number of mediums and lows for the next two ranks. Originally, I weighed each metric equally to one another but switched to weigh the quality metric less than the others. This does not affect who receives first place, as there was a clear performance of mostly highs. However, the effect of weighing the quality metric less than the others, when considering second and third place, affected the outcome.

The results of this website evaluation gave a basic understanding of current website usage from a user perspective which I compared to a planner's perspective later. It also provides a ranking of how each city's planning offices compare to one another. The notes taken during this evaluation provided additional topics to interview planners about.

3.4 Semi-Structured Interviews

After I evaluated the planning website experience of each city, I conducted semi-structured interviews to document the perspective of planners. I did not find literature to specifically speak to the opinion of public officials, especially planners, on the use of websites for engagement; so this was an important data need. Current literature highlights socio-cultural issues in adoption and adaption of information and communication technologies for governments. Therefore, I asked questions on the management and personnel needed to develop and maintain planning sites for engagement (Bindu, Sankar, and Kumar 2019, 395). Finally, it is important to understand processing systems of input from online engagement. As Mandarano, Meenar, and Steins (2010) mentions, there is little to no evaluation of how online engagement has changed planning outcomes. The questions also considered the difference in the cities' planning .gov websites and those that are hosted by external parties, like through a consultant. These are commonly used in planning and I directly asked about this distinction throughout the interview.

I asked a list of eight core questions with possible additional sub questions to help guide the planners towards certain topics when needed. See appendix B for the structured questions. I also used the semi-structured aspect of the interviews to ask questions based on my results from their website evaluation. Below is a breakdown of the three guiding topics and the data goals that inspired my predetermined interview questions:

Usage

1. Planning office set up of city planning website for online participation
2. Planning office set up of external websites for online participation
3. Planner opinion of online participation influence towards planning decisions

Processing

4. Planning office system(s) for using input gathered from city planning website
5. Planning office system(s) for using input gathered from external websites

Organization

6. Process of working with internal IT personnel for managing city planning website
7. Process of working with external IT personnel for managing city planning website
8. Planning office policies and procedures for the use of websites for planning

I held all the interviews virtually through Zoom, recorded them using Zoom, and transcribed through Zoom. I read consent agreements to the planners being interviewed and they verbally consented as part of the Zoom recording. See appendix C for the entire consent agreement. I converted the Zoom transcript files to Google document format using a VTT file convertor. Lastly, I replayed the Zoom recording to edit the transcribed content for accuracy.

All processing of data was done manually by me. I compiled each cities' interview questions and answers onto individual tables for initial processing. I analyzed each city individually because each interview got slightly different questions as topics arose or through slight re-wordings of similar questions. This analysis was deductive and focused on developing an answer for each city to the predetermined themes: How do they use websites? How do they process website input? How is work organized around websites? As I found answers to these thematic questions, I wrote up a narrative for them in each city's results section. Once I analyzed and wrote up a narrative of each city interview based on these predetermined themes, I analyzed the individual narratives together using inductive methods to find commonalities and differences. I looked for common themes in either two or all the cities' use and management of planning websites. I also looked for things that contradicted what another city may have said. After I typed up both the individual and group findings, I emailed a document with all the direct quotes and surrounding context to the interviewed planners so they could provide a review of their quoted content. This also allowed me to ask a clarifying question to two of the planners on something I only learned after I had interviewed them both.

4. FINDINGS

The results of the website evaluations and interviews are laid out in two sections. The first section has a write up of each cities' website evaluation results and interview results. The interview results include both insights learned from the planners as well as a narrative of their responses. The interview response write up is separated into three subsections, which follows the categories of interview topics: website usage, online input processing, and organization around websites. The second section of the results is for the comparison of the cities based on their individual write up. The comparison of the website evaluation subsection includes a table that shows the final ranking of the website evaluation. For the three interview comparison subsections, there is a summary table at the end of each to highlight the common and divergent beliefs, practices, issues that came from the comparison. They are not extensive and only include what came up from the interviews.

4.1 Des Moines, Washington

4.1.1 Website Evaluation

Informing	**Engagement**	**Referring**	**Transparency**	**Quality**
Low	Medium	Low	Medium	High

Table 4. ***City of Des Moines final website evaluation metric rankings***

Des Moines ranked the lowest across the five e-government metrics compared to Seattle and Bellevue. The site listed a few initiatives and all of them appeared to not be active. By the time of evaluation, the tab listed as “current projects” was empty. This resulted in a low rating for informing. From the previous initiatives still on the website, there is a concise amount of information and there are plenty of documents to go through to learn about the initiatives. The length of the documents may be overwhelming to the public but there are also presentation materials that provide similar info in a quicker fashion.

The engagement of this site is ranked medium, with only one of the initiatives having an option to send in comments through survey monkey. The survey simply asked for “comments” and did not have any prompts. There did not appear to be external sites, social media, or other referring information away from the city planning website; resulting in a low for referring metric. There is a sense of transparency from previous meeting documents, but ranked medium because there appears to be a lack of current initiatives on the website. In terms of website quality, there is a consistent layout and everything appears to work. Due to the presence of inactive and expired initiatives, it can be inferred that it is not updated often. This is matched with the lack of a “last updated” or similar indicator.

4.1.2 Website Use

According to the interview, the city website is “regularly” used for public participation for specific planning initiatives. The planner believed this setup to be effective and allow people to learn about initiatives when they might not be able to physically attend meetings. They also mentioned that they have started setting up initiative emails and using online comment forums to help the public reach them in more ways along with learning about initiatives. With the COVID-19 pandemic, they stated that more planning processes have gone online, like plan reviews, but updating this kind of material has been a time challenge. Older initiative information is kept for archival reasons and any potential public requests, but the planner believed that information should not be at the forefront because it is “sort of irrelevant data at that point.”

The city, according to the planner, has rarely used external sites for public participation purposes. They mentioned one was used for a joint planning effort with a nearby city who took the lead themselves, but Des Moines does not focus on these kinds of websites “but will use it if it’s needed or wanted.” They mentioned “typically those kinds of off-site websites it's just the staff capacity to manage something like that, since it's not a day-to-day job requirement…” When asked about benefits and cons of using these types of non-city sites for planning purposes, they mentioned that it is preferable for cities to have control of information on websites for public requests, a con of using external sites. There is a preference for traditional participation processes because it allows for in-person

conversations that allow for richer dialogue amongst each other, especially for Des Moines' significant elderly population who is believed to not be familiar with online modes. Non-traditional input processes, like websites, should be more of a secondary option that allow for similar input gathering as the primary traditional modes.

4.1.3 Online Input Processing

Input gathered from online processes would mostly be treated like in-person input, such as summarizing comments from post-it notes. As stated above, external websites are not commonly used, so this would come primarily from the city website. However, the planner did state for a complex initiative, they used a consultant's comment tracking system that downloaded public comments from the city website for sorting. They believed that this is a benefit to working with external organizations, as consultants have tools that cities may not. Initiative specific emails and comment forms are the most likely avenues of online input used.

4.1.4 Organization Around Websites

Currently, Des Moines planners do not have access to work on the city website themselves and rely on the city IT department to upload their content, which is not a problem to them. In fact, the planner warned about having too many people "be able to jump in and make changes" because that can cause its own issues. The planner stated there is a preference for consistency. There is a strong collaborative relationship between the planning office and the city IT department in setting up the planning website. The planner mentioned they feel they can effectively communicate planning goals with the IT department, theorizing it might be because they are a small city.

In terms of the general process for working on their planning website, the planning department develops the web content and then has the city IT department create the initiative specific web page on the city planning site and add the content per the planning department specification. Communicating timeframes are an important part of this, as the planner mentioned the IT department needs to know when information needs to be up as well as updated or taken down. IT also provides help with formatting needed to download and analyze online input.

The planner acknowledged that information on the planning website is old and should be taken down. They also mentioned that the public struggles with finding information on the website, causing a continuous need to update and improve it. However,they suggested there is a balance of keeping outdated information up since it might be part of a long process initiative that should be archived for potential public record requests. In terms of regular update schedules, the planner said there is none currently, but that it should be done quarterly or biannually. The planner had to note during quote review that, for initiative specific content, planners monitor and update information over the course of the initiative. Similarly, there are no policies or procedures around the use of

websites in the planning department and that they have “creative license there as to the type of information we want to include on our website.”

4.2 Bellevue, Washington

4.2.1 Website Evaluation

Informing	Engagement	Referring	Transparency	Quality
Medium	Low	High	Low	Medium

Table 5. ***City of Bellevue final website metric rankings***

Bellevue ranked second in the website evaluation compared with the other cities. There is a list of eight plans and initiatives in addition to some separate planning topics. For this evaluation, only the plans and initiative were evaluated. The other planning topics were mostly ongoing programs that did not appear to focus on decision-making. While there is a good amount of information for each initiative, it received a medium overall in the informing metric due to most of the initiatives not appearing active. One seems to leave the public waiting for info, such as missing links to past presentations or “TBD” for dates, yet this activity of the initiative appears to have already happened around 2018. Another initiative has a similar issue with little info on exact dates but “Pending direction from the City Council…” The city’s website ranks low in engagement because there appears to be no opportunities for directly submitting public thoughts on it. In terms of goals, there are a variety of ways these are formatted on the initiative web pages with half having a clear “Goals” header and the other half not. Some of the ones that did not have this header had “What Happened” which may point to an intentional alternative use of words to indicate that the initiative expired.

Content that refers people out of the website is not there, with a regional energy utility Puget Sound Energy appearing as the only mention of an initiative partnership. Planning specific social media is also not part of the website. However, the high ranking Bellevue gets for the referring metric comes from its use of the external site EngagingBellevue. This engagement site is an all-in-one website, hosted by a third party called EngagementHQ, that allows the public to directly engage with the planning department. There are options to post public or private comments, ask questions and receive public answers from planners, engage with surveys and questionnaires, use participatory GIS maps, and other direct engagement tactics. Because this site is for the entire City of Bellevue to use for their engagement strategies, it is not clear which ones are planning specific ones unless you click on it and read more about it or see that planning personnel are attached to it. There is a tab specifically for the city’s comprehensive plan update. Some of the city planning initiative web pages link to this EngagingBellevue site, but

not all initiatives do: just the comprehensive plan city site and one other initiative. There appears to also be no general overview or call for action on the city planning site that tells the public why they should use the EngagingBellevue site other than linking to it.

There is a low score for the transparency metric, as there are missing links to known past meeting materials. It was difficult to evaluate the upcoming meeting information indicator because most appear to be expired initiatives and naturally would not have it. There is an overall good amount of previous meeting information and general meeting materials. Only one initiative site appears to have had a download for an excel of comments from the public. There is a general sense of legal framework given for the initiatives, as state laws and local ordinances are mentioned, but this information might be difficult to know whether it is missing or not. The quality of the website was ranked low because the initiative pages do not have consistent layouts of information They have the same mobile usability, working links and pages, and no indication of when each page has last been updated. Unique to Bellevue is that they have a site map for their city website.

4.2.2 Website Use

The planner viewed the city planning website as a place for most initiatives to have a landing page to share basic information about. The initiative sites also have council materials and other materials that summarize the initiative. For the comprehensive plan specifically, the planner described it as having its own initiative site with broader information, but someone could go further by clicking on other links to get more specific information, like amendments. The planner described the layout of the planning website and its initiative pages as “hierarchical layered system where, if you start broad, and you can click deeper if you are interested.” Initiatives that are no longer active will be kept up and updated with past tense wording and eventually taken down. Some initiatives are kept up to allow for people to still learn about them. Initiatives like comprehensive planning always stay up since they have ongoing relevance. If the planning department thinks a certain initiative will be especially searched for by the public, they have it placed on the city’s homepage as a “hot topic” option that highlights it at the top of the page.

The planner mentioned that most people probably use Google instead of searching through the city website for planning content. This makes them consider the labels used on their planning site, to ensure things are easily searchable. This also leads to the need to “scrub” the website of old info that cannot be found from clicking around the website because it may still show up in Google search results. The planning website has a consistent layout across the city website which the planner believed allows for the public to better navigate it. In updating the planning sites for affordable housing initiative, the planner mentioned having additional subpages aimed at different audiences; in the instance of an affordable housing initiative, this could be the general public, someone wanting to live in affordable housing, and the developers. They mentioned developing the website with the audience in mind is important and could be improved. They felt that these

changes to their affordable housing initiative page could be replicated elsewhere on the city site.

For external sites, Bellevue primarily uses a site called EngagingBellevue.com, an EngagementHQ platform, for interactive engagement purposes. This contrasts with the city planning website, which the planner believed to be mostly informative. The planner mentioned that the city website is written primarily in HTML, which most planners do not know how to work on, and is a simple platform. EngagingBellevue is said to be more general user friendly and allow for widget and other tool use. Instead of having to create and take down planning initiative pages on the city website, EngagingBellevue stays up regardless if there are any active planning initiatives. The planner mentioned that the planning staff have control over how much info the public needs to share to engage with the website. There are also options to allow the public to pick if they want their comments to be public but others can respond to it; to be private and just for the city to see; or to be anonymous. The planner saud they use certain approaches, depending on the kind of engagement they want to get, however they said it is typically good to have posts be public. The planner included that when people engage with one another, they have more informed dialogue, and subsequently have richer conversation. Currently, the city sets it to have comments posted publicly, but the public is allowed to switch their posts to private if they want to. The planner felt that people are more productive if their comments are public: "Sometimes we'll get, like, a lot of knee jerk reactions that are just like 'I'm really mad about this thing' and we're like, 'Okay, well that's good to know that you feel that way, but what can we do about it?' and they tend to be more productive to actually solve issues or kind of talk to each other or being more articulate if it's public.'

The planner mentioned that EngageBellevue is a consistent resource that has been used for a few years. It was said that this site is linked on all the city planning initiative sites. Because of its consistent use, the planner felt this allows the public to become familiar with it as a way to engage with the city; which they said works well. They suggested that it be used in combination with outreach messages, because there are risks of people not knowing what to look for and websites alone do not elicit a broad input sample. However, they also recognized that traditional forms of informing the public about planning initiatives, like notices by mail and newspaper, are "old school" and limit who is aware of an initiative. So, in addition to increasing outreach, they mentioned it is also important to consider "pairing the information that's up on the website with ways to get people to go there." Social media, and the ability of consultants to target certain populations, are noted for this. EngagingBellevue is said to not be used for only planning initiatives and other departments have used it to engage with the public, such as transportation and parks.

When asked about how websites should be used for public participation, the planner agreed with the options that it needs to compliment in-person engagement, be its own unique form of engagement, be both informing and engaging, and be able to influence decision-making. This goes back to the awareness of the audiences' preferences and the

planner elaborated that “some folks just want to be able to browse something…some folks that want to get really engaged, they want to have information that they can spend hours reading that they can, like, really dig in to…some folks are somewhere in between.” They mentioned it is important to have these “different layers” to meet different preferences for the website. This approach also ensures the public has at least basic information about planning initiatives to prevent what the planner said are “knee jerk reactions” and that informed opinions are more helpful. They also said that if people are more informed about something, they get excited about engaging with it. The planner suggested the public have the opportunity to learn on their own before coming to a meeting, so this is formatted in online meetings for people to learn about an initiative first. Bellevue planning has recorded separate videos for those who want to access them through EngagingBellevue on their own time. These videos are more self-led and informative and then the site allows for direct engagement.

4.2.3 Online Input Processing

Most input from the public is through events and, when online, through EngagingBellevue. As the planning department receives this input in person or through online surveys, they are said to try to pair it with demographic information. The public is asked, but not mandated, to provide this information. The planner mentioned this helps ensure that the voices are representative of the relevant initiative area community. This also shows their practice of handling in-person and online engagement the same, with a desire to have online compliment in-person engagement to get as many people engaged as possible. They have put up surveys online that are the same questions used in mailed surveys. The planner mentioned that some people do not like filling out handwritten surveys and that some households have multiple people who would want to fill out a survey.

Input data is said to be handled the same if gathered from in person or online. When possible, a general review of all comments is done, exporting to excel is usually used, and for overwhelming amounts of data, also using tools like word clouds and sentiment analysis. Automation is said to not be an option currently due to it not understanding key planning terms or acronyms. The planner shared that the planning teams separate input into themes and identifies challenges, strengths, concerns, and joys. The planner acknowledged representation issues using this method. There was also an acknowledgement that only statistically valid surveys are “foolproof…but they're expensive so we don't do them on every project.” The EngagingBellevue website has some analysis tools, but they are reported to be “clunky” so the planning team rely on the methods described above instead. Lastly, the Bellevue planning team has a dedicated staff member who works on community engagement and does input analysis in addition to helping lead engagement efforts.

4.2.4 Organization Around Websites

Something unique to Bellevue, as the planner put it, is the community engagement employee they have. They mentioned this employee brings a unique perspective because they know enough about planning to be part of the team but have other experiences they can share. The planner emphasized this as being helpful. The planner shared that several of the planners at Bellevue have editing access to their city web pages and this access can be given early on in a planner's duration there; if not, it is simple to get. The changes they can submit go to a department approver. The planner said this process helps keep initiatives updated and with the convenience of not having to rely on permission to make changes; especially, as they pointed out, if it is a small change like adding a council meeting link. Because of this, the planner said their department does not rely on the citywide IT department to make changes to their website. The citywide IT department will occasionally go through their departments' web pages to check for accessibility and notify the planning department of the changes they make. The planner mentioned also working with the citywide IT when needing to develop pages on the city website that needed more work than they could handle. In one instance, the planner coordinated the website changes, gave the relevant links to put up, and set the time for the site web page to go up. The planner agreed these are more service exchanges than pure collaboration with IT.

The planner has worked with the citywide IT in a more collaborative effort in the past, however, for a cross-department GIS story map. This was part of their State of the Neighborhood update to the city council on current conditions of different neighborhoods. In addition to the documents shared with council on this matter, the planning department led an effort to put it up as a website. The planner noted a lack of capacity, however, to keep this kind of site regularly updated. The planning department coordinated with other departments and the citywide IT department, specifically a GIS group. The GIS group hosted the site, put maps together, and provided general assistance with the process. The planner commented that this GIS group "is great," "were a huge part of that project," and "were definitely part of our project team and had suggestions about how to improve things." Effectively communicating planning goals with the citywide IT is said to require some work. The planner shared that planners must communicate more to bridge the gap between them and those in IT as well as be aware of their lack of planning background. There have been some frustrations in different perspectives of the website; the planner mentioned occasions where the planner had set up web pages for people to access things in a certain way, but the IT department wanted to change these web pages to be more consistent with a city standard and accessibility needs. Once the two departments communicated their goals more, the planner felt they could "kind of work it out." In contrast, the majority of members of the GIS group have planning backgrounds, so the planner reported they can understand the planners' website needs and actually suggest their own methods. The planner mentioned that the planning department can work more collaboratively with those who have a planning background.

In terms of policies and procedures around the planning departments' use of websites, the planner stated there is not much and that it is something to improve on. There is a framework the two planning departments, current and long-range, use when planning initiatives. Included in this framework is a step for creating a website, another step for keeping it updated, and additional details for web pages of bigger initiatives. The planner stated this framework is more of a suggestion rather than a mandate and not all steps are suggested if the planning commission is not involved. The planner could not think of any formality that calls for certain initiatives needing a certain website or length of time on the website.

4.3 Seattle, Washington

4.3.1 Website Evaluation

Informing	Engagement	Referring	Transparency	Quality
High	High	Medium	High	Low

Table 6. ***City of Seattle final website evaluation metric rankings***

Seattle's planning website ranked first among the others and had the most high ranking metrics of the evaluation. There were many initiative pages to go through, 38 in total, but it appears just a few are active. Four initiatives were disregarded from the evaluation, even though they are listed are current initiatives on the site; one appeared to be more of an ongoing program than a specific decision to be made, another was not part of the planning department URL and more of a citywide housing initiative, one was a former case study, another was just general data information about the city, and the last one taken off was a waterfront initiative that did not have an internal city planning web page for it. An ongoing initiative list can be found on the homepage and through a tab at top of the planning website. When going through the 38 initiatives, a tally list was taken to help keep track of how the city performed with the indicators. See appendix D for this tally count. Not all these initiatives appeared active at the time of evaluation. Only a few appeared active or on hold for potential future engagement. Most appeared to have expired, with some having completion dates going back to early 2010s. There was not a clear sense of why these were still active and categorized as "ongoing." Most that did not appear active changed the wording of web pages to past tense and may have replaced "Goals" with "Outcomes" and/or "The End Results." There were two initiative web pages for the comprehensive plan, one for the previous one and one for the current one that is about to be updated. There appears to be an evolution of formatting through the list of initiatives. One period appeared to have a format of using tabs on an initiative web page for different types of information. Another period appeared to have the previous format in addition to a progress bar at the top of the initiative web page. The most recent format

appeared to have all the information on one page in various layouts. Regardless of the formatting, they had planner contact information on them and most had background context for the initiative. Only about half had a clear sense of timeline of the initiative and engagement opportunities. They received a high ranking for the informing category.

In terms of the engagement metric, there were a few initiatives that appeared expired that got Seattle a high ranking. At least four of these appeared to have currently or previously a survey for the public to take about that initiative. There were a couple of initiatives that mentioned the use of GIS participatory maps, but it is not certain if these were used or accessed from the city website. Other than that, the city site had no opportunity to directly engage with the site to give input. However, just these few instances of engagement opportunities awarded them a high for the engagement ranking.

For referring information, Seattle ranked a medium. About half the initiatives referred to other groups part of a particular initiative and a couple linked to external sites. These included Sound Transit, community organizations, other city departments like Seattle Department of Transportation or Seattle Department of Neighborhoods, neighborhood groups, development authorities, and consultant groups. One light rail expansion initiative had a different layout than the typical planning initiative web page and linked to an external site with more interactive engagement opportunities for the public. This external site is by the Seattle Department of Transportation and the planning city web page for it appeared to be more of a compilation for Seattle Department of Transportation materials too. Lastly, social media appeared to be common to Seattle planning, as YouTube videos are linked on initiative web pages and there was a planning department Twitter feed embedded on the planning homepage. Other social media accounts linked on this homepage were Facebook, a Daily Plan It blog part of the Seattle city website, and Instagram.

For the transparency metric, Seattle ranked high as most of the initiatives had documents with past engagement summaries of public input and thirteen provide full comments that were submitted. These were uploaded as excel downloads PDF maps with full comments retyped, pictures of public comments on easel boards, and archives of GIS participation maps. With most initiatives having appeared inactive or expired, it is not possible to evaluate the upcoming meeting indicator. Only one initiative appeared to clearly mention the chance of an upcoming meeting(s). Most initiatives clearly listed the previous meetings that occurred as well as the materials used at each meeting. Because most initiatives appeared to have expired at time of evaluation, it was not possible to evaluate if these were put up ahead of time for the meetings. Lastly, the initiative web pages provided a legal framework for some initiatives, such as SEPA documents, connection to various levels of regulations, city ordinances, mayoral initiatives, etc.

Finally, the quality of the website ranked low,because there were issues of some broken links and different initiative information formats. There was another site that ends

with “city-planning” that may be an older version of the site that was evaluated. It linked to some of the same information but was only found when using Google to find the Seattle planning website. There appeared to be no indication of when a web page had been updated last and can only be inferred from the content. The mobile usability was the same as the desktop and everything appeared to load fine on each page visited.

4.3.2 Website Use

The planner first mentioned that their planning website has a list of ongoing initiatives in the main section of the website, which includes initiatives that “are in some stage of being underway.” They mention that when an initiative is finished, it stays on the website for “quite a while” which could cause people to feel it is in the past. The planner said they view the planning website primarily as a one-way information sharing platform, from planners to the public: “...it's mostly where we put out all the information about our work that people can consume.” They mentioned it is mostly written content, but can also include visuals. They did not recall any way for the public to directly use the website to provide input. They said there is a staff person’s contact information on the initiative web pages the public can use to reach out. There is also an email sign-up option on many of the initiative web pages, which allows the public to receive periodic updates from the staff contact of that initiative. Online surveys through Survey Monkey are used and, while representing an external site, they have been embedded or most often are linked on initiative web pages.

When asked if the current city website use is effective, the planner had a couple of considerations. They brought up first that, in terms of having information that people can “access and consume and learn from,” it is “moderately effective.” They mentioned three factors that influence this: the availability of the internet, the frequency of the websites’ use, and people’s comfort in using websites to get information. They mentioned some barriers, like lack of access and language, but use Google translation services to help with this. They also mentioned the usefulness of the website as an information source depends on how much it is updated, which they admitted is currently not updated frequently enough. They said the planning website is not something a member of the public would think to use on a weekly basis to see new content. In terms of having a place where people can engage with the planning team, the planner shared that it is “pretty ineffective” and feels that “It’s clearly not a place where we can hear anything from community members.” They mentioned there are other places, outside the city website, where they have had website engagement opportunities. They considered the overall effectiveness of their city website “somewhat effective” for the “simplest of tasks that we would hope to accomplish through our online home.”

External sites have been used for bigger initiatives, allowing for more participation over a longer time period using different channels. The planner said these types of external sites are not regularly used and there is no set parallel process or complimentary basis to

using them with the city planning website. According to the planner, these external sites mostly came from consultants that either created a website or adapted a website platform they already have. One of these is Consider It, an online engagement platform that cities have used. The COVID-19 pandemic increased the need for online open houses and have been used more. Additionally, they mentioned ESRI's GIS based "Hub" has been used more frequently. This service offers online maps and websites that provide information to people, but also allows people to use the maps to provide direct input. Another tool used allows the public to comment on each other's comments and another tool allows the public to vote in favor or against someone else's comment. External sites have also been used for informational purposes "that is presented in a better way than we're able to do through the limitations of our .gov content management system." One of these limitations is that the current city content management system "is a little bit dated or even outdated…" The other limitation is the requirement to work within a standardized city website, which "constrains some of the more creative ways to put our content online or solicit input from the public…"

On the topic of using websites versus in-person engagement to gather input, the planner mentioned there is a wide range of audiences to consider. More place-based initiatives with a geographic focus have more easily identifiable stakeholders that in-person engagement is most likely used. For smaller audiences, online engagement may be used based on individual preferences. Those with large audiences, like city-wide initiatives, may be best for online based engagement. Especially considering that citywide initiatives may take in account workers residing outside the city and displaced individuals, the planner mentioned this audience can get upward of a million people. The planner said this number of stakeholders is not possible to reach with phone or in-person engagement; therefore, they believe online engagement is a way to reach more people. It is ideal to approach engagement with different forms and avenues for the public to communicate with planners. However, it is important to consider that there are "multiple forms of bias in each type of channel" of engagement used. The planner mentioned this is a reason that online engagement should complement other forms of engagement. People's comfort and access to the internet is another determining factor in using online engagement. The planner pointed out that certain communities may have language barriers, lack of trust towards the government, or generally do not want to post their ideas online. Because of this, the planner said online engagement needs to be alongside other types of opportunities to provide input. In addition to the focus of the public providing input one way, the planner highlighted the importance of back and forth conversation between people. They felt that online engagement should allow for two-way communication between the city and community as well as among community members. While they admitted issues of being a "big bureaucracy…not, like, always on the cutting edge of technological tools" there is still a desire to incorporate the tools and platforms that allow more online discussion. The COVID-19 pandemic has shown that in-person events can be recreated in digital format and not using the city website.

4.3.3 Online Input Processing

Because the city website is not used to gather input from the public, input comes from the external websites. The planner mentioned input is processed depending on the initiative and the input being collected. They described that it varies if the consultant(s) who set the external site up is the one to synthesize and summarize the input from the public or if the input goes directly to the planning department. A community development employee who works in the department's communications team is said to also help with processing input from online. The planner mentioned that input from websites "probably feeds into other things that we're hearing through other channels…in-person conversations, meetings, open houses, all sorts of types of events." Online input gives the planners more information about how the public is responding to their work and this is taken "into consideration, through the iterative process that is planning." This process, which may use websites to collect input, can include input taken early and sometimes before initiative launch. The planner described this process as phases of input, from when an initiative has started to following along its milestones. Input is said to also help shape the scope of an initiative, its alternatives, and may be word or visual focused. Lastly, the planner mentioned that input is usually given as the initiative progresses to its final proposal before it goes to the citywide executive branch for approval.

4.3.4 Organization Around Websites

When asked who works on the planning website, the planner highlighted the employee in their department's communication team. Because this person is a community development expert, they bring their own ideas for engagement that are deemed helpful and "a huge asset for our department." The planner mentioned that this person understands the work of the planning team and can speak on similar terms. Their job duties are described as having relationships with communities and spending time in the community. This person is said to be able to help inform what planning goals are and "in helping us think about how those things show up online." This person acts as administrator of the planning department's website content and can make updates in the content management system. The planner mentioned it is the responsibility of planners and other staff to keep the website updated and provide their respective content to this website administrator. However, this person is said to also help develop website content. This process of tending to the website is described as "not super systematic" in that there is not "clear protocol" all the planners and staff follow when working with the administrator personnel. The requests for website changes can range from edits of an existing web page, which are described as requiring a simple email exchange, to a complete overhaul of the department website, which are described as requiring more of a conversation and a process. In all changes to the planning website, it is said there are still constraints from the citywide standards that must be worked with "so we're not imagining from scratch…" Instead, it is said that the planning department has the opportunity to control the key tabs to use and how to organize content on a page, including drop down menus and accordion menus. The planner mentioned these formatting decisions come up when creating a web

page for a new initiative, which is a “sort of collaborative” effort with the web administrator; after that, it mostly just requires updates requested by the planners and planning staff.

According to the planner, there are few instances of working with the citywide IT department, but they may come up if the planning departments want to consider new functionality of the standardized content management system. This has been done with other departments in the past, so it is possible that the planning department can work with citywide IT to change what the content management system can allow or to customize blocks of code. When asked if there are any policies or procedures on the use of websites for planning, the planner admitted there is not anything formal like that; instead, norms are typically followed. These include using plain language to help the public follow along and looking for ways to incorporate visual content to describe things; sometimes replacing written content with visual content. The planner mentioned one formal piece of policy that applies to the planning website, which is around the use of surveys and the topic of privacy. If the planning department were to receive a public disclosure request of any of the surveys, they would need to make sure the confidentiality of the surveys is upheld.

4.4 City Comparison

4.4.1 Website Evaluation Data Across the Cities

The cities have a similar basic structure in how they use their city website for planning processes. All have a long-range planning website that hosts web pages for initiatives, including a comprehensive plan. Comprehensive planning web pages are the most detailed ones for all the cities. While going through the cities’ websites, there was an overwhelming amount of documentation for even just a single initiative web page. Some of these were meeting materials that could help catch someone up if they missed an event, others were draft plans that are longer, and others were blank comment cards used at engagement events. With all the documents that are put on the cities' web pages, it certainly increases the transparency; but could also set the expectation that the website is just an archive. While the city web pages had a wide range of information on them, each city evidently has issues with having the latest information and have many seemingly outdated initiatives appearing as ongoing. There is little indication of when a web page was last reviewed or updated on any of the cities' websites. For Bellevue and Seattle, they specifically have a tab and web page on their city planning website for “plan archive” or “past initiatives.” There is little to any indication to a user what clearly defines a past initiative. Once one sees many older initiatives on the list of “ongoing” or “current,” they may doubt the entire collection. This could lead people to be less likely to engage in online formats as it starts becoming blurry if the content is complete or tended to.

The cities had little to no direct engagement opportunities on their city websites. If these existed, they mostly came from external sites. Bellevue and Seattle currently have these external websites and they have a drastically different structure of information, visual

layout, interactivity, and opportunity to move across multiple web pages and tabs. This furthers the perception that citywide planning sites are more for archival, informational uses. While they both use these external sites, there is a distinction between Bellevue and Seattle's external sites. Bellevue has just one that acts as a hub for all city initiatives, beyond just planning. Bellevue has increased the engagement opportunities by using the EngagementHQ host's tools such as community member to community member commenting, interactive maps, and surveys. Seattle, on the other hand, uses different external sites for the initiatives that use them. Some of the external sites that are used are hosted by collaborator agencies like Sound Transit and others are hosted by different consultants. They do not appear to utilize as wide a range of interactive engagement opportunities as Bellevue's external sites do.

E-Government Metric	Des Moines	Bellevue	Seattle
Informing	Low	Medium	High
Engagement	Medium	Low	High
Referring	Low	High	Medium
Transparency	Medium	Low	High
Quality	High	Medium	Low
RANKING	**3rd**	**2nd**	**1st**

Table 7. ***Website evaluation final rankings***

After comparing the cities' website evaluation rankings, Seattle received the first ranking. There were only small differences in comparison to the other cities that led them to receive more high rankings. For instance, Seattle's past inclusion of survey links on just four city planning web pages got them a high ranking due to Des Moines appearing to have just one web page with a survey link. Des Moines, who had the least amount of web pages and information on their planning website, received high in quality because Seattle appeared to have some broken links and Bellevue's layouts had slight inconsistencies. Bellevue, who ranked medium after Des Moines, scored this way because they likely have more initiative web pages to keep up compared to Des Moines. Des Moines and Bellevue overall tied on their rankings, if each metric had equal weight. However, the methodology calls for weighing the quality metric differently. It was clear that having a strong referring metric aligns more closely with the goal of focusing on democratic ideals more than simply having higher technical quality of a website; therefore, Bellevue ranks second overall for the website evaluation.

There is a correlation between final website evaluation rankings and the cities' assumed capacities. Seattle, with the highest assumed capacity, ranked first; conversely for

Des Moines. Informing is the only metric that strictly followed along with the capacities of the cities; the lowest capacity city received a low informing rank while the highest capacity city received a high informing rank. The quality metric did the opposite. Having up-to-date information appears to be a common issue across the cities, regardless of capacity. There seem to be trade offs among the different capacities that may provide more insight into their website use.

Lower capacity cities like Des Moines may be more likely to have less initiatives to feature on their website and may have a higher likelihood of having a website with little chance for interaction due simply to having fewer current initiatives. This could explain the overall lowest ranking that Des Moines received but ranked high for quality; with less content to include on a page, there is more of a likelihood for it to overall be higher quality as there is less chance to have mistakes such as broken links or inconsistent layouts. Additionally, lower use of a planning website could lead the planners to engage less with their own website and be unfamiliar to it, perpetuating its little use.

Higher capacity cities like Seattle may have many initiatives to highlight on their planning website that it overwhelms a user and requires them to be more knowledgeable about what to look for. It may also lead planners of that website to have a hard time keeping up with their website content, update it, and be able to make systematic changes that are consistent across all web pages. This may be why Seattle ranked high on nearly all the metrics but ranked low for quality, due to inconsistent layouts of web pages and an instance of a broken link.

The middle capacity cities like Bellevue may have a variety of trade offs that are difficult to identify, but may avoid extreme issues. They may have enough initiatives going on that they can keep regular attendance to their website, but not to the point where consistency and technical issues are more likely to occur. They may have ranked high for the referring metric due to needing an online engagement option that can bypass city website limitations, but do not have the option to hire multiple consultants. Their external website, EngagingBellevue, may be an efficient and necessary way to centralize all online engagement opportunities.

4.4.2 Website Usage Across the Cities

All the cities' planners described their city website as a place for their department initiatives to have an online presence. They all mentioned that, by hosting information about initiatives, learning is a function of their planning websites. The cities each mentioned intentionally keeping past due initiatives up on their planning department website, with Bellevue stating they will change wording on initiative web pages to reflect this. Reasons include archival function and allowing people to continue learning from them. This appears to be consistent with website evaluation findings, but there appears to still be an issue with keeping the information up to date. The cities may have recognized a need to

keep inactive initiatives up, but there is little indication on any of their websites that there is a clear list of those that are active for engagement and for what exact time period. Seattle validated this feeling, that the public may see expired but still-listed initiatives as in the past. However, there does not seem to currently be a way to mitigate this perception issue. Seattle also admitted that their website's usefulness depends on how frequently they update it and that theirs is not updated enough. Bellevue also recognizes the need to clear up web pages of old information that may be found from Google, but not from general use of the website. They suggested most people use Google instead of directly searching from the city website, so they label things to be easily searchable.

There is an interesting distinction between Bellevue and Seattle's interviews: when asked about general use of their city website for public participation, Bellevue answered that the site is for most initiatives to have a web page with basic information where Seattle answered that their website is to "put out all the information about our work…" This word choice can be connected to the "Informing" category of the website evaluation, where Seattle ranked higher than Bellevue. Des Moines and Seattle mentioned having contact information for their initiative web pages, with Des Moines creating initiative specific emails. Only the Bellevue planner mentioned the option to highlight certain planning initiatives on the citywide website homepage.

Des Moines appeared confident in their website's effectiveness in public participation while Bellevue and Seattle appeared to accept theirs as more of an online information home for their department; with the understanding that engagement opportunities can be done on external sites. All the cities mentioned needing to update their planning sites better. An interesting point from the Des Moines planner is in the current capacity for widespread website-based engagement opportunities. They mentioned that with the COVID-19 pandemic, more planning processes went online; however, they do not have the capacity to keep these updated online. The cities mentioned downsides in using their city websites for public participation. City standardization reduces opportunities for more interactive elements. Additionally, outdated content management systems and not being trained in HTML, or other website management skills, are other limitations for more engaging city planning websites. Seattle also mentioned that providing information on their city website is difficult and that visual layouts can be more effectively used on external sites.

All the cities mentioned barriers to website access, including age, personal preference, comfort in online discussion, accessibility, trust in government, and language. This suggests that websites should not be the main focus of engagement, but as an addition to traditional modes. All the cities highlighted the importance of person-to-person communication in planning and how that could be missed with websites. For Des Moines this seems to be a barrier to focusing on using websites for engagement, but for Bellevue and Seattle, they appear to utilize tools that can recreate this through public deliberation of forum posts.

The planners all mentioned using external sites for planning efforts, with Seattle having the most sites, Bellevue having the fewest but most consistently used sites, and Des Moines rarely using these sites. Seattle does not have a procedure for when to use external websites for initiatives, other than the function of allowing more participation over a longer period that may need additional channels to reach the public. The Des Moines planner shared that cities should have control over their data, especially for public disclosure requests, which can be a con of using external sites. EngagingBellevue is a unique platform compared with the cities and its function as the engagement parallel to the city website seems to be an effective model. Its utilization of widgets contrasts with the pure HTML formatting of city websites. Compared to Seattle's use of various consultants' external sites, it may provide broader relationship building and co-development of engagement websites for cities if the same company is used. While the Bellevue planner mentioned people are familiar with using EngagingBellevue for engagement purposes, they still include outreach strategies to attract people to the site.

All the cities mentioned that websites have a use in planning, to a varying degree. Des Moines, with a large elderly population, prefers traditional modes of engagement and sees websites as a secondary option that would be parallel to traditional processes. This is consistent with them viewing their city website as effective for public participation, as they mentioned it as a place for people to mostly learn about initiatives when they cannot physically attend meetings. All the cities mentioned that traditional engagement modes foster richer dialogue because they allow people to converse in person. Bellevue shared a unique perspective that planning websites should have both basic-level information for the public to learn on their own as well as various levels of information to meet different audiences' preferences. They shared this may lead them to engage in a more informed and excited way. Bellevue even records separate, more self-led videos for EngagingBellevue. The Seattle planner added the perspective that for place-based initiatives, stakeholders are more likely to engage in person and websites can be used as an additional channel; whereas citywide initiatives may require website-based participation to reach everyone.

	All	**Des Moines**	**Bellevue**	**Seattle**
Current Practices / Uses of Websites	Planning website acts as online presence for planning initiatives Websites are to learn about initiatives	Includes initiative-specific email contact information on each initiative web page Does not use tools to imitate	Keeps past initiatives up on city website with different wording Deletes old city website content from Google	Includes all information about initiatives on city website City website has contact information on each initiative

	Keeps past initiatives on city website for archival reasons Uses external sites for planning efforts	person-to-person engagement online Rarely uses external sites for planning efforts	searchability Labels things on city website for ease of Google searchability City website has basic information about initiatives Highlight planning initiatives on city website home in hot topics section Uses tools to imitate person-to-person engagement online Uses same external site for planning efforts as parallel engagement website to city website Uses other engagement strategies to get people to external engagement site Develops	web page Uses tools to imitate person-to-person engagement online Occasionally uses external sites for planning efforts if longer initiative and/or expected high engagement

			separate self-led videos on external site	
Beliefs / Preferences	Websites should be used alongside traditional modes of engagement Websites miss important person-to-person communication Websites have a place in planning Barriers exists to website-based participation	City planning site is effective for public participation Favors city websites for purpose of controlling data for disclosure requests Favors traditional modes of engagement Websites should be the second option for engagement	City planning site is effective in providing information Websites inform and excite people to engage	City planning site is effective in providing information City website usefulness depends on update frequency Visual layout is better on external websites Websites are good for non place-based, broader city initiative engagement
Issues Identified	City website not updated enough City website standards hinder public participation opportunities	Does not have capacity to keep COVID-19 pandemic engagement opportunities updated on city website		

Table 8. ***Summary of website usage across the cities***

4.4.3 Online Input Processing Across the Cities

All the cities had similar answers in how they would treat input received online from either internal or external websites. Because they mentioned that online forms of engagement would be similar to the more traditional methods, they all expect to produce

similar input types that can be easily incorporated into traditional input types. For Des Moines, this input comes mostly from their city website, while for Bellevue and Seattle it mostly comes from their external sites. Either of these channels may result in excel sorting, word clouds, sentiment analysis, and receiving data from the consultants hosting external websites. Consultants appear to have tools that cities may not have, according to the Des Moines planner, which can especially help with larger complex initiatives. However, because the Bellevue planner mentioned the analysis tools of EngagingBellevue to be "clunky," they do not use them. Both Bellevue and Seattle have a dedicated community engagement employee who helps with analyzing input. Seattle mentioned processing input from online depends on the initiative, input being collected, and if consultants send raw data or summarized data. Bellevue collects demographic data alongside input gathered from both traditional and website based engagement to mitigate any representation concerns. Bellevue brought up that they add online survey options alongside mailed options to help with multi-person households or to match peoples' preferences. Automation is not yet a reliable way to sort through engagement data, as it was said coding common planning terms remains difficult. Overall, there is not much insight in how to process website input, especially when compared to in-person input. Based on all the planner's interviews, it is usually collected with similar prompts and time frames to traditional methods.

	All	**Des Moines**	**Bellevue**	**Seattle**
Current Practices / Uses of Websites	Generally sees and incorporates data from websites same as traditionally obtained input	Website-based input mostly comes from city website	Website-based input mostly comes from external site Has a dedicated community engagement employee to help with analyzing input Collects demographic data with all input, website or not	Website-based input mostly comes from external sites Has a dedicated community engagement employee to help with analyzing input Website-based input processing depends on initiative, the input, or if consultants send raw or

				summarized data
Beliefs / Preferences		Consultants have helpful website tools to process information city websites do not		
Issues Identified			Consultant website tools are “clunky” and do not use them	

Table 9. ***Summary of online input processing across the cities***

4.4.4 Organization Around Websites Across the Cities

The biggest divergence in the cities is how they organize around the use of websites in their planning departments. While all the planners shared they work with their citywide IT departments for large scale initiatives and general support, there are different setups of how websites are edited and who has the access to. For Des Moines, planners do not have editing access and rely on their citywide IT department for all changes to the planning web pages. The opposite exists for Bellevue: Bellevue planners mostly all have editing access and can change their web pages when needed, once an administrator approves. Somewhere in between, Seattle planners rely on sending changes to a planning department employee who acts as a website administrator for their department.

General attitudes of the planners towards their citywide IT department were stated as neutral to positive. All the planners mentioned city website standards have prevented their planning departments from having control over the format of their web pages. Most times the cities have worked with their citywide IT departments, it was said to be a simple service exchange. Bellevue mentioned a gap between planning and IT that can lead to frustrating website outcomes. mostly when needing to conform to citywide IT standards. They shared it is up to planners to be aware of this gap and communicate planning goals more to bridge it. Because the Bellevue planning department has some autonomy over their web pages and put up their own content, the citywide IT department will occasionally sweep their content to make accessibility changes to it. Bellevue’s GIS group, part of their citywide IT, offers a different experience that is more collaborative; which the planner shared is due to their planning backgrounds. Des Moines believes their relationship with their citywide IT department to be collaborative. They mentioned the small size of their city may make this planning-IT collaboration more possible and makes relying on them for

changes easier. The Seattle planner could not identify a time where they worked with their citywide IT department on their website. They clarified that their internal website administrator can handle most of their website needs.

None of the cities mentioned any formal policies or procedures around the use of websites in their planning work. Seattle explained they have norms around incorporating visual content when possible and using plain language. Bellevue mentioned a framework that current and long-range planning departments have that suggest website use for planning initiatives; it is only suggestive and especially up to the planner's discretion if the planning commission is not involved. The only thing that came up focused on public disclosure laws and keeping information available for release and confidential if requested. Des Moines mentioned this lack of policies allows them flexibility in what kind of content they can host on their web pages. They suggested having scheduled updates to keep information current. Both Bellevue and Seattle highlighted the importance of having a dedicated employee who can help plan engagement strategies and web content. These employees are not planners but have communication and community engagement experiences that provide additional perspectives.

	All	**Des Moines**	**Bellevue**	**Seattle**
Current Practices / Uses of Websites	Works with citywide IT department for large scale website changes Receives support from citywide IT department Does not have formal policies and procedures for website use	Planners do not have website editing access and rely on citywide IT department for all changes	Most planners have website editing access that are approved by department administrator Have successfully worked with GIS subgroup from citywide IT department due to their planning experience Citywide IT department occasionally changes	Planners do not have website editing access but have department administrator to make changes for them Has norms for visual and plain language on websites Has dedicated communications employee to help with planning content and strategies

			planning web pages for accessibility Has framework that suggests websites for initiatives Has dedicated community engagement employee to help with planning content and strategies	
Beliefs / Preferences		Identity as smaller city allows them to collaborate with IT better Has strong collaborative relationship with citywide IT department Less website policies allows for more flexibility of website content Suggests update schedules to keep website content updated	Planners are responsible to bridge gap between planning and IT	

Issues Identified	City website standards hinder public participation opportunities		Gap between IT and planning personnel can be frustrating	

Table 10. ***Summary of organization around websites across the cities***

5. DISCUSSION

Traditional planning processes rely on in-person engagement and are based on outdated tactics institutionalized before the use of the internet. Websites, a medium of using the internet, allow governments to host information and directly engage with the public. However, a common experience of planning websites is to find mostly information and opportunities to engage off websites. This research confirms the assumption that planners do not prioritize the use of websites in decision-making processes. The research also confirms the assumption that there is little systematic adoption of e-governance strategies that guide the use of information and communication technologies in planning offices. After conducting the research, capacity became an important variable to consider in the evaluation of website experience and practices. Below is a summary of key findings from the website evaluations and interviews. After that, a more in depth analysis is done to compare the research results with the literature.

5.1 Key Findings

All the cities appear to mostly base their city website content around specific initiatives. The content for their city websites is more informational with little to no direct engagement opportunities. Engaging elements of web pages occur almost strictly on external websites. There is a focus on comprehensive planning, as these initiatives have the most content and calls for engagement on all the cities' websites. All the planning websites appear to have outdated information and little to no indication, on the website or specific pages, when content was last updated. Overall, Des Moines appears to have the least amount of information and engagement opportunities from websites while Bellevue and Seattle have more. The population of the cities could be relevant, as it is more likely that larger cities will have more initiatives to work on at any given time. Since Des Moines is the smallest city, it makes sense they have the least amount on their planning website. They most likely have less initiatives to keep consistent and they have a citywide IT department who makes changes for them; further increasing the chance of their planning website being more consistent. This may pose issues if planners are unfamiliar with their own websites, which may be the case with the Des Moines planner; whose interview responses were shorter than the others and gave a different impression than the website evaluation did. Because most of the metric rankings came down to small differences across the cities, capacity may be more of an important factor than originally thought in evaluating planning offices for their use of information and communication technologies.

The planner's perspectives of their websites show they all agree that planning sites should be informational, but the degree to which they should be directly engaging has differing opinions. A common theme is that there are barriers to using websites and that website-based engagement should parallel traditional strategies. Any input gained from online engagement is reportedly treated and processed the same as input from traditional methods. In terms of practices and management regarding website use, there seems to be little to no policies that provide an e-governance direction at any of the cities' planning offices. They all have different personnel and collaboration patterns that affect how content is managed. The smaller city Des Moines relies on their citywide IT department to upload their content, larger city Seattle relies on an internal administrator to upload their content, and medium city Bellevue can upload their content with approval from an internal administrator. The assumed capacities of their planning offices may be relevant to this set up, as the larger population cities have more internal employees to work on websites. Capacity may be connected to ability to have more generalists that can act as internal support for planning teams. Unique to Bellevue and Seattle, the larger capacity cities, is an internal community communications employee who can help with website content and processing engagement input. All the cities mentioned that citywide IT standards prevent planning sites from being more engaging and external sites are a mitigation strategy for this.

5.2 Use of Websites in Planning

This research supports the context laid out in the introduction that today's American planning websites lack direct engagement options on city websites. Through the website evaluation and interviews, it is confirmed that all the cities' websites favored information over engagement. This is supported by Mandarano et al. (2010) claims that city planning sites mostly just provide information and neglect engagement through websites. Considering Arnstein's (2019) ladder of public participation, it is clear that planning still has issues of being stuck in the "nonparticipation" category when taken to website forms. Websites do not seem to facilitate power sharing any more than traditional forms do. There is also the lack of public empowerment and co-production from sustained interaction, as mentioned by Cohen-Blankshtain & Cofen (2021), through the medium of websites. This also all fits with the literature used to develop the website evaluation tool, in which almost all of the different authors' models had content or information as a metric to evaluate government websites. The chart developed by Lee-Geiller & Lee evaluation model shows that e-governance evaluation would show a mostly asymmetric one way degree of interaction

Even in just focusing on the informing category of the city's website use, there are issues of having up to date information on their city websites. It also seems to lack in its participation design as mentioned by Bryson et al. (2013). Not all initiative web pages across the cities even had clear engagement goals. Another recurring issue is the lack of

information upkeep. This points to clear connections to the public's sense of transparency and clear expectations by their planning offices. Perpetuating the issue of distrust and uncertainty in how to engage, as pointed out by Brenman and Sanchez (2012), planners are missing an important opportunity to keep the public democratically informed of current issues by neglecting the simple task of having up to date websites. Brenman and Sanchez (2012) also focused on the importance of sustained interaction with the public and while originally websites were thought to be an opportunity for that, it seems from the research that just Bellevue comes close to that ideal through the use of their EngagingBellevue external site.

External sites were an informative topic of the research. All of the cities use or have used external sites to host planning information and engagement opportunities. Strict city IT website standards were listed as a common reason to seek external website hosting means. This could be from lack of internal capacity, inability to work with citywide IT website standards, and general local government reliance on consultant partnerships. While these external sites allow for greater engagement tools, given current citywide IT standards, there is a trade off with information privacy and freedom. EngagingBellevue is hosted by the company Bang the Table. As part of their privacy policy, Bang the Table collects information from users to improve their product. User information may also get collected from additional external parties on matters of technical support. Users may request part, or all of their information collected, depending on local regulations (Bang the Table n.d.). There are many alarming parts of the terms and conditions for EngagingBellevue (Engaging Bellevue n.d.). Some of these seem troubling to any democratic ideals and may dismiss this seemingly great example of a participatory website.

"7. USER CONDUCT

…

7.2 You also acknowledge and agree that:

a) *we and our designated agents have the right (but not the obligation), in our sole discretion, to review and monitor Content you post on the Site, and we may refuse to post or remove, in our sole discretion, any Content that is available via the Site, including if it violates our Moderation Rules (see below). In some cases, Presenter has the right to review and approve Content before it is included on the Site. Note that neither we nor Presenter edit your Content.*

…

7.4 By accessing the Site, you expressly agree that: (a) the Site is not a public forum; and (b) the Content you post on the Site does not constitute protected speech under the First "Amendment of United States Constitution.

…

9. GENERAL PRACTICES REGARDING USE AND STORAGE

9.1 You agree that Host has no responsibility or liability for the deletion or failure to store any messages and other communications or other Content maintained or transmitted by the Site.

9.2 You acknowledge and agree that Host:

a) is entitled to log off any account that is inactive for an extended period of time; and

b) may, in its absolute discretion, with or without notice to you, delete, modify or otherwise deal with any Content stored at the Site and any of your user profile information or account at the Site.

10. MODIFICATIONS AND DISCONTINUANCE

10.1. We reserve the right at any time and from time to time to modify or discontinue access to the Site (or any part), with or without notice, temporarily or permanently without liability to you or to any third party.

11. USER ACCOUNT TERMINATION

11.1. You agree that Host may, in its sole discretion and with or without notice to you, terminate your password, account or use of the Site (or any part), and remove and discard any Content within the Site for any reason including without limitation, where a breach of copyright has been reported.

11.2. You agree that Host may in its sole discretion and at any time discontinue providing the Site, or any part, to you with or without notice, and without liability to you or any third parties.

11.3. You agree that termination of your access to the Site under any provision of these TOU may occur without prior notice, and acknowledge and agree that we may immediately deactivate or delete your account and all related information and files in your account and/ or bar any further access to such files or the Site.

11.4. If your account or access to the Site is terminated for any reason, you must immediately cease using the Site. Termination does not affect any of our accrued rights or liabilities.

...

19. COPYRIGHT and DMCA

19.1. When using the Site you may provide us with Content. You retain your rights to your Content, but you grant us a nonexclusive, royaltyfree, transferable, worldwide right and license, with the right to sublicense, to use, modify, distribute, publish, copy, reproduce, or otherwise exploit all the Content you post, submit or display on the Site, and all information derived or generated from it, in all existing or future media. These rights include without limitation the right to search the information and, consistent with our privacy policy, to repackage and market it to anyone for any reason.

19.2. Presenter complies with the Digital Millennium Copyright Act ("DMCA"). We will terminate copyright infringers when legally required or appropriate.

19.3. As used in this clause 19, information includes but is not limited to data, text, photographs, drawings, sound recordings, feedback, and any other information or data displayed or presented by you on the Site.

20. GENERAL INFORMATION

...

20.3. The TOU and the relationship between you and us is governed by the laws of the State of Colorado without regard to its conflict of law provisions. Any dispute or claim relating in any way to your use of the Site will be resolved by binding arbitration, rather

than in court, except that you may assert claims in small claims court if your claims qualify. The Federal Arbitration Act and federal arbitration law apply to this TOU. We each agree that any dispute resolution proceedings will be conducted only on an individual basis and not in a class, consolidated or representative action. If for any reason a claim proceeds in court rather than in arbitration we each waive any right to a jury trial. We also both agree that you or we may bring suit in court to enjoin infringement or other misuse of intellectual property rights" (Engaging Bellevue n.d.)

Their terms of service give a private company the power to erase any user's account and content as well as have copyright access to share user content for their own private use. The site is not a public forum and seems to be moderated more than it would be in-person, as deleting content is easier to hide than preventing someone from speaking in an in-person meeting. The binding arbitration clause also prevents the public from taking Bang the Table to court, which may have implications against public decision-making and democracy. Even the City of Bellevue, as presenter, has the power to prevent content from being shared before others see it. This may be typical and necessary for effective planning engagement practices but needs literature and research to provide context. There are privacy risks of outsourcing such sensitive data-ridden processes to external parties, especially when those parties have a business goal, as Whittington et al. (2015) found in their legal analysis of vendor contracts with the City of Seattle. E-governance strategies should include policies around data security when working with external parties.

This reliance on external groups to provide engaging websites for planning offices is similar to Lee, Lee-Geiller, and Lee (2021) stance that governments over-rely on external expertise and lack government website design expectations; which results in low public use due to neglecting democratic ideals. While Bellevue mentioned that EngagingBellevue is popular among the public, more information is needed to understand their preferences and satisfaction with the website. Currently, there is a lack of literature on user preferences for e-governance and e-government strategies. Kolsaker and Lee-Kelley (2008) confirm that government websites have user design issues due to a lack of government website experience separated from private companies. This different adoption shows another need for more systematic e-governance solutions and policies that set a standard for the public to be able to interact with their governments through information and communication technologies. It also could create an expectation to allow the public to help continually develop this standard.

All the planners mentioned that website based engagement is removed from person to person interaction. This fits with Brody, Godschalk, and Burby's (2003) conclusion that two way information sharing resulted in the most participation. While websites historically have lacked person to person communication, tools exist and are gaining popular use to communicate between two or more people; even in written format. This research supports the superiority of EngagingBellevue in terms of effective participation. However, there still seems to be a perceived barrier from planners that websites do not allow for adequate person to person communication.

Here is where Thoneick's (2021) research can provide an answer in that they found integrating technology with in-person participation allows for richer dialog. Thoneick (2021) offers a helpful tradeoff to consider when developing participation designs. Online participation allows the public to more efficiently submit their feedback and have it be captured for future use, whereas in-person participation may easily dismiss individuals' feedback for an over-concentration on dialog. Additionally, Kleinhans, Van Ham, and Evans-Cowley's (2015) research is relevant here in that it is important to ensure that

> *"virtual connections also manifest themselves in real space through concrete actions and connections,connections, and only if a range of both online and offline engagement tools is used in order to include both technologically-savy citizens and the 'slow adaptors'."* (p 244).

It seems that the use of websites in planning offices is under the philosophy that it should be in addition to in-person traditional formats. However, this does not mean that online participation is inherently ineffective; in fact, it provides its own benefits that in-person participation may lack.

Brenman and Sanchez (2012) call for a constant consideration of inclusive governance practices where planners need to exert their abilities for more authentic dialogue and networks. By assuming that information and communication technologies do not allow for adequate person to person communication, planners may also neglect technologies that better involve the youth. Planners also miss the inclusivity that comes from technologies that can reduce the distance between people and their governments. However, all the planners perceived a barrier in having adequate dialog using websites. It seems premature for planners to consider that websites do not provide more person to person contact when those tools exist but are rarely utilized. However, this research validates the work that Bindu, Sankar, and Kumar (2019) did to conclude that e-governance strategies depend on the willingness of the stakeholders who adopt it.

The planners all mentioned barriers to website accessibility and cite that age, socio-economic status, personal preference, and cultural background influence someone's likelihood of using online forms of engagement. The literature doesn't address all of these, however regarding race, Brenman & Sanchez (2012) point out the relevant fact that there may not be as much of a racialized component to internet access as typically thought. Pew Research also shows that internet usage is fairly similar across age and race/ethnicity. More literature and research are needed to consider how socio-economic and cultural factors play into someone's willingness to engage in e-government strategies. This should also consider how this willingness is different from traditional in-person types of engagement.

As the Seattle planner suggested, website based engagement may be especially useful for city-wide initiatives that lack a specific site. An interesting way that planners could use websites towards decision-making is inspired by Innes & Booher's (2004) research around collaboration. Their suggestion that collaboration should also build civil

society poses an interesting opportunity for the use of websites. It may be better to use websites and information and communication technologies to facilitate public engagement amongst the public and then planners engage with this as observers. The public can build social capital and better push for things collectively by organizing amongst themselves. This would be instead of the planner facilitating and initiating the online engagement. Coe, Paquet, and Roy's (2001) research fits here in that they believe it is important to build online ecologies to share local needs. People already share their perspective in countless places and ways online, so it seems that planners should work more to fit with that kind of engagement than expecting the public to always interact with their engagement designs.

It seems that processing input from online modes of engagement doesn't pose a problem as originally suspected.The planners all mentioned that online input is typically gathered the same way as in-person, just over the internet, and/or can fit in with what is collected in traditional modes. However, this issue cannot be confidently decided on as there is not widespread use of websites for engagement matters to adequately research it. This research wasn't able to adequately address Mandarano, Meenar, and Steins' (2010) call for assessing how planning uses online engagement is actually processed, by who, and how it is used in plans. The research also couldn't speak much to Milakovich's (2014) suggestions in processing large amounts of data. Des Moines did provide a perspective that keeping up with COVID-19 website engagement was not possible due to capacity restraints; however, it is not clear how much of that was because of website content versus website input processing.

5.3 Management of Websites in Planning

One of the main assumptions regarding the issues of website use in planning offices is the struggles between planners and IT professionals. This was validated by Seattle and Bellevue having some frustrations with their citywide IT department. Des Moines did not, but it should be noted that they have a very limited website presence compared to these other two and are the smaller population city. It may be that smaller cities have closer connections to each other's departments. The fact that Des Moines relies on their citywide IT department may also point to a more established relationship with them. Interestingly, Seattle and Bellevue were the only cities that had someone internal to their team that was not purely a planner who could also work on their websites. The fact that Seattle and Bellevue have more website editing capabilities in their planning departments seems to allow for more creative websites that utilize a wide range of elements. This fits with Milakovich's (2014) research that bureaucrats need to change internal structures and reorganize external relationships to effectively use e-governance technologies. It seems that city IT should not be purely centralized, but should have decentralized aspects in departments, especially those who want to create a sense of engagement through their websites.

The other problem assumed with today's e-governance use/adoption is the technical aspects that prevent planners from being able to independently run their own web pages. All the cities mentioned top down IT department direction on city website content and that standardization is prioritized at the cost of usability. This fits with Kleinhans, Van Ham, and Evans-Cowley's (2015) research that argues attempts to incorporate technology into are technology driven and neglect usability. Instead of relying on external groups, particularly those in the private sector, it may be beneficial to consider literature on government open source technologies to consider the future of the public sector building its capacity to provide technological solutions for itself. This could have implications for how the internet is provided and may be a reason for changing it to be a public utility.

The systems framework that Huffman (2017) presents e-governance as encompassing the use of information and communication technologies, the organization of e-government, and the practices of e-participation. In theory, the cities that are a part of this research implement some level of practice for each sphere of Huffman's (2017) e-governance model. It is clear that they all use information and communication technologies in some capacity, they adopt processes and structures to update websites, and they offer some form of online engagement. What is missing, it seems, is an acknowledgment of any conceptual framework or strategy that guides these practices. From the lack of policies and systematic use of websites from the cities, it is clear the assumption that there is a weak systematic adoption of e-governance direction in American planning is supported. This fits with Dawes' (2008) research that the least progress around e-governance is in the institutional and administrative reform. It is notable that Dawes article is from 2008 and this issue is still prevalent according to the three cities examined today in 2022, fifteen years later.

Meijer and Bolívar (2016) add to this by believing there are issues in management, governance, and technology policies. Milakovich (2014) seems to confirm this issue with their conclusion that governments tend to rely on the private sector in website services. The limited policy and framework for e-governance in these planning offices mimics the unknown e-governance direction in the state of Washington. There is hope that the limited direction the federal government provides in their creation of a White House office, dedicated personnel, and codified policy, that states may build their own frameworks for how governments use information and communication technologies for democracy.

6. CONCLUSION

There is a need to not just critically consider today's participation practices in planning, there is also a need to critically consider the frameworks that planners use in decision making systems. One of these systems, e-governance, has high everyday use but little framework to guide it effectively. In setting standards and expectations for the use of information and communication technologies in the planning process, planners can evaluate current participation practices that better fit the technologies used today. There is

a need for formal e-governance strategies that set standards, enforce inclusive participation, and build upon experiences of good governance.

6.1 Implications

Information and communication technologies, like websites, are an important part of today's society and have an increasing part in government work. Surprisingly, there seems to be a lack of framework that guides how governments will use information and communication technologies for important aspects of governance. Concepts such as e-government, e-participation, and e-democracy do not seem to be active priorities for the field of planning. This leads to an internet dominated by private interest, from website hosting to internet connection. User experience of websites is generally seen as a private endeavor and only recently has a democratic user experience of government websites been highlighted by a few researchers. There is an impressive amount of literature on the topic, dating back even to the early 2000s when there was a strictly limited presence of the internet. The literature considers the connection between democratic decision-making and information and communication technologies, the user experience of government websites, and a lack of foundation for the necessary socio-technical changes needed to effectively implement information and communication technologies with good governance. However, this does not seem to translate to practice today and planning offices use websites in different capacities; likely according to their population and internal resources.

Through analyzing websites and interviewing planners from the Puget Sound region of Washington State, this thesis documents insights into how planning websites are currently used and managed. Currently, government websites remain mostly informational with little engagement opportunities. External websites by private parties are relied on to have more creative and engaging planning websites. Current gaps in understanding how online engagement is used in decision-making remains unclear. It seems that e-governance in American planning is not a current priority. This thesis provides some insight into why this is.

6.2 Future Research

There are many points of future research to consider this topic further. To start, the perspective of city IT departments would be a helpful addition in getting a comprehensive understanding of how websites are used in city planning. The planners all mentioned city IT standardization policies as a common barrier to more engaging websites, so this standard should be considered further. What framework do city IT departments build for themselves and follow to effectively serve the public if they have issues with promoting democratic participation on their websites? Are city IT departments too IT focused and is there a lack of personnel who can ensure that IT goals match public service goals? What are the perspectives of city IT departments on the concept of e-governance and do city IT departments adopt e-governance frameworks? Lastly, what kind of working relationship do city IT departments have with departments, especially planning departments; and if

planners mention the website functionality does not serve their needs, why are external sites the common way to mitigate this instead of changing the city IT standards?

On external sites and the private partnerships that host them, more research is needed on how these affect a city's ability to truly meet public needs. Do they truly promote democratic decision-making? Are the business terms of conditions compatible with democratic decision-making? How do the limitations of content and freedom of speech from companies like Bang the Table compare to what currently exists in government content regulation? The perspective of these external sites should be considered more and how their goals align with the governments they host websites for. The cost of these relationships should be considered, especially in comparison to what that value could do to build up government sector website hosting. Lastly, are these sites a long-term solution for government engagement on websites or should this work be eventually taken up by governments?

The perspective of the public is a significant factor in assessing and determining e-governance strategies that need more research. Do people prefer online forms of engagement to in-person forms; and if yes, how do they want to engage online? How does this differ among various socio-economic groups? What benefits do online engagement in planning bring to people compared to traditional forms of engagement? Do people feel they can have more political efficacy through online engagement? What kind of user experience expectations fit for someone wanting to get involved in their local planning initiatives? What forms of planning process are best suited for online input? How do people interact with planning websites and what things do they look for? What are their preferences for city government websites layout? How does the public feel about the current reliance on external websites for more creative and engaging websites? What studies and best practices do governments use in developing a democratic based user experience for their websites? Planners seemed concerned about a lack of genuine discussion using websites; does this worry exist with the public and if so, could it be mitigated?

Lastly, the policy direction of IT management and resources for governments in the systematic use of information and communication technologies for governance should be studied more. What is the role of the government in providing technology solutions for itself? How does the capacity of municipalities affect their ability to engage in e-governance strategies and what resources are needed to best implement them? Does the government generally accept that information and communication technologies are necessary for an effective democracy? Do governments have a responsibility to provide internet connections as a public utility? What infrastructures exist to have effective open government technologies? What should e-governance strategies actually encompass in an American context and what are next steps? What other countries can be examined for best practices in e-governance strategies?

7. APPENDIX

7.1 Appendix A. Website Evaluation Tool

E-Government Metric	**Indicator**
Informing	List of projects
	Background info
	Schedule info
	Planner contact info
Engagement	Goals, expectations, etc
	Comment boxes
	Questionnaires
	GIS maps
	Citizen consultation sign up
	Simulation tools
	Forums
Referring	Partner information
	External project site(s)
	External social media site(s)
Transparency	Availability of past/current engagement
	Upcoming meeting info
	Previous meeting info
	Meeting materials
	Legal framework
Quality	Consistent layouts
	Working links
	Everything loads on pages
	No dead sites
	Mobile usability

	Update information
	Site map

7.2 Appendix B. Semi-Structured Interview Questions

Usage

1. Can you provide an overview of how your office uses its city website for public participation?
    a. Do you think this is effective?
    b. What suggestions do you have to improve it?
    c. Who regulates,develops,maintains this?
2. Can you provide an overview of how your office uses external sites for public participation
    a. Do you rely on them?
    b. Why not use the main .gov one?
    c. Benefits/cons?
    d. Who regulates,develops,maintains this?
3. How do you think websites should be used in planning?
    a. Should it compliment in person engagement or be its own unique form?
    b. Strictly informing or allowing for collection of engagement input?
    c. Ability to influence decision making?

Processing

4. How does your office use input gathered from online sources from the .gov website?
    a. In comparison to input gathered from in person?
    b. What systems do you use to track and process online submitted input?
5. How does your office use input gathered from online sources from external websites?
    a. In comparison to input gathered from in person?
    b. What systems do you use to track and process online submitted input?

Organization

6. Does your office have personnel who can work on .gov website updates when needed?
    a. What is that process like; is it collaborative or more of a service exchange?
    b. Can you effectively communicate planning goals with them?
    c. What would you suggest to make this relationship better?
7. Can you provide an overview of the process of updating .gov website updates with your jurisdiction's IT department?
    a. What is that process like; is it collaborative or more of a service exchange?
    b. Can you effectively communicate planning goals with IT departments?
    c. What would you suggest to make this relationship better?

8. Are there any policies or procedures in how websites are used for planning in your department?

7.3 Appendix C. Semi-Structured Interview Consent Agreement

Consent agreement

The purpose of this interview is to provide a planner's perspective on the use of websites for online public participation for my thesis project. This interview will be semi-structured, focusing on predetermined questions, but I may ask additional questions depending on answers. All planners that are a part of these interviews will not be referred to by name, but will be referred to as being a planner from their jurisdiction. I may use direct quotes and will share all direct quotes that I use for a chance for you to review and provide additional comment on. To help me analyze the interview responses, I will be recording through Zoom. You may turn off your video any time, but I will need you to use audio for all your interview responses. This allows me to have both audio and transcript files. Only I will have access to the audio recordings. My thesis committee, professor Joaquin Herranz of UW and professor Jan Whittington of UW, may review the audio recordings.

Given this information, I will ask for verbal consent on a few things:

- Do you consent to be interviewed?
- Do you consent to be referred to in my thesis without name but by the title of planner from your jurisdiction?
- Do you consent to have direct quotes of your interview responses used in my thesis, with the chance to review and comment on which direct quotes I will use?
- Do you consent to be recorded through Zoom?
- Do you consent to my thesis committee reviewing the audio recordings?

7.4 Appendix D. Tallies for Seattle Website Evaluation Tool

Indicator	**Tally**
Background info	Yes: 34 Not clear: 2 Non applicable: 0 No: 2
Schedule/timeline	Yes: 17 Not clear: 10 Non applicable: 0 No: 11
Goals	Yes: 16 Not clear: 16 Non applicable: 0 No: 6
Partner Information	Yes: 17 Not clear: 2 Non applicable: 19 No: 0
Past/current engagement	Yes: 13 Not clear: 12 Non applicable: 1 No: 12
Upcoming meeting Information	Yes: 1 Not clear: 2 Non applicable: 28 No: 7
Previous meeting information	Yes: 24 Not clear: 4 Non applicable: 1 No: 9
Meeting materials	Yes: 26 Not clear: 0 Non applicable: 0 No: 12

8. REFERENCES

Arnstein, Sherry R. 2019. “A Ladder of Citizen Participation.” *Journal of the American Planning Association* 85 (1): 24–34. https://doi.org/10.1080/01944363.2018.1559388.

Bindu, N., C. Prem Sankar, and K. Satheesh Kumar. 2019. “From Conventional Governance to E-Democracy: Tracing the Evolution of e-Governance Research Trends Using Network Analysis Tools.” *Government Information Quarterly* 36 (3): 385–99. https://doi.org/10.1016/j.giq.2019.02.005.

Brenman, Marc, and Thomas W. Sanchez. 2012. *Planning As If People Matter: Governing for Social Equity*. Washington, UNITED STATES: Island Press. http://ebookcentral.proquest.com/lib/washington/detail.action?docID=3317594.

Brody, Samuel D., David R. Godschalk, and Raymond J. Burby. 2003. “Mandating Citizen Participation in Plan Making: Six Strategic Planning Choices.” *Journal of the American Planning Association* 69 (3): 245–64. https://doi.org/10.1080/01944360308978018.

Bryson, John M., Kathryn S. Quick, Carissa Schively Slotterback, and Barbara C. Crosby. 2013. “Designing Public Participation Processes.” *Public Administration Review* 73 (1): 23–34. https://doi.org/10.1111/j.1540-6210.2012.02678.x.

Cambridge Advanced Learner’s Dictionary & Thesaurus. n.d. “Governance.” Accessed May 27, 2022. https://dictionary.cambridge.org/us/dictionary/english/governance.

Coe, Amanda, Gilles Paquet, and Jeffrey Roy. 2001. “E-Governance and Smart Communities: A Social Learning Challenge.” *Social Science Computer Review* 19 (1): 80–93. https://doi.org/10.1177/089443930101900107.

Cohen-Blankshtain, Galit, and Anat Gofen. 2021. “Serial Participation in Urban Planning.” *Journal of the American Planning Association* 0 (0): 1–14. https://doi.org/10.1080/01944363.2021.1947872.

Dawes, Sharon S. 2008. “The Evolution and Continuing Challenges of E-Governance.” *Public Administration Review* 68 (s1): S86–102. https://doi.org/10.1111/j.1540-6210.2008.00981.x.

E-Government Act of 2002. 2002. *Stat.* Vol. 116. https://www.congress.gov/107/plaws/publ347/PLAW-107publ347.pdf.

Fung, Archon. 2006. “Varieties of Participation in Complex Governance.” *Public Administration Review* 66 (s1): 66–75.

https://doi.org/10.1111/j.1540-6210.2006.00667.x.

Hosch, William. n.d. “Web 2.0 | Definition & Examples | Britannica.” Accessed May 26, 2022. https://www.britannica.com/topic/Web-20.

Huffman, Benjamin. 2017. “E-Participation in the Philippines: A Capabilities Approach to Socially Inclusive Governance.” *JeDEM - EJournal of EDemocracy and Open Government* 9 (December): 24–46. https://doi.org/10.29379/jedem.v9i2.461.

Innes, Judith E., and David E. Booher. 2004. “Reframing Public Participation: Strategies for the 21st Century.” *Planning Theory & Practice* 5 (4): 419–36. https://doi.org/10.1080/1464935042000293170.

Irawan, Bambang, and Muhammad Nizar Hidayat. 2022. “Evaluating Local Government Website Using a Synthetic Website Evaluation Model.” *International Journal of Information Science & Management* 20 (1): 449–70.

Karkin, Naci, and Marijn Janssen. 2014. “Evaluating Websites from a Public Value Perspective: A Review of Turkish Local Government Websites.” *International Journal of Information Management* 34 (3): 351–63. https://doi.org/10.1016/j.ijinfomgt.2013.11.004.

Kaylor, Charles. 2005. “The State of Local E-Government and e-Democracy: Benchmarking the Progress of US Cities at Providing Online Opportunities for Citizen Engagement.” In *E-Government and Planning: Key Citizen Participation Issues and Applications*, edited by Jennifer Evans-Cowley and Maria Manta Conroy, 4–15. Columbus, OH: John Glenn Institute for Public Service and Public Policy. https://kb.osu.edu/handle/1811/519.

Kleinhans, Reinout, Maarten Van Ham, and Jennifer Evans-Cowley. 2015. “Using Social Media and Mobile Technologies to Foster Engagement and Self-Organization in Participatory Urban Planning and Neighbourhood Governance.” *Planning Practice & Research* 30 (3): 237–47. https://doi.org/10.1080/02697459.2015.1051320.

Kolsaker, Ailsa, and Liz Lee-Kelley. 2008. “Citizens’ Attitudes towards e-Government and e-Governance: A UK Study.” *The International Journal of Public Sector Management* 21 (7): 723–38. https://doi.org/10.1108/09513550810904532.

Lee, Taejun (David), Seulki Lee-Geiller, and Byung-Kwan Lee. 2021. “A Validation of the Modified Democratic E-Governance Website Evaluation Model.” *Government Information Quarterly* 38 (4): 101616. https://doi.org/10.1016/j.giq.2021.101616.

Lee-Geiller, Seulki, and Taejun Lee. 2019. “Using Government Websites to Enhance Democratic E-Governance: A Conceptual Model for Evaluation.” *Government Information Quarterly* 36 (2): 208–25. https://doi.org/10.1016/j.giq.2019.01.003.

Mandarano, Lynn, Mahbubur Meenar, and Christopher Steins. 2010. “Building Social Capital in the Digital Age of Civic Engagement.” *Journal of Planning Literature* 25 (2): 123–35. https://doi.org/10.1177/0885412210394102.

Meijer, Albert, and Manuel Pedro Rodríguez Bolívar. 2016. “Governing the Smart City: A Review of the Literature on Smart Urban Governance.” *International Review of Administrative Sciences* 82 (2): 392–408. https://doi.org/10.1177/0020852314564308.

Milakovich, Michael E. 2014. “Digital Governance and Collaborative Strategies for Improving Service Quality: 6th International Conference on Knowledge Management and Information Sharing, KMIS 2014.” Edited by Kecheng Liu, Joaquim Filipe, and Joaquim Filipe. *KMIS 2014 - Proceedings of the International Conference on Knowledge Management and Information Sharing*, KMIS 2014 - Proceedings of the International Conference on Knowledge Management and Information Sharing, , 109–18. https://doi.org/10.5220/0005021001090118.

Office of Management and Budget. 2017. “FY 2016 ANNUAL REPORT TO CONGRESS: E-GOVERNMENT ACT IMPLEMENTATION.”

Pew Research Data. 2021. “Internet/Broadband Fact Sheet.” *Pew Research Center: Internet, Science & Tech* (blog). April 7, 2021. https://www.pewresearch.org/internet/fact-sheet/internet-broadband/.

The White House. n.d. “Office of E-Government & Information Technology.” The White House. Accessed May 28, 2022. https://www.whitehouse.gov/omb/management/egov/.

Thoneick, Rosa. 2021. “Integrating Online and Onsite Participation in Urban Planning: Assessment of a Digital Participation System.” *International Journal of E-Planning Research* 10 (1): 1–20. https://doi.org/10.4018/IJEPR.2021010101.

US Census Bureau. n.d. “U.S. Census Bureau QuickFacts: Bellevue City, Washington.” Accessed May 28, 2022a. https://www.census.gov/quickfacts/bellevuecitywashington.

———. n.d. “U.S. Census Bureau QuickFacts: Des Moines City, Washington.” Accessed May 28, 2022b. https://www.census.gov/quickfacts/desmoinescitywashington.

———. n.d. “U.S. Census Bureau QuickFacts: Seattle City, Washington.” Accessed May 28, 2022c. https://www.census.gov/quickfacts/seattlecitywashington.

Usability.gov. 2014. “User Experience Basics.” Department of Health and Human Services. February 19, 2014. https://www.usability.gov/what-and-why/user-experience.html.

WaTech. n.d. “About | Washington Technology Solutions.” Accessed May 28, 2022. https://watech.wa.gov/about.

Whittington, Jan, Ryan Calo, Mike Simon, Jesse Woo, Meg Young, and Peter Schmiedeskamp. 2015. “Push, Pull, and Spill: A Transdisciplinary Case Study in Municipal Open Government.” *Berkeley Technology Law Journal* 30 (3): 1899–1966.