

University of Windsor

## Scholarship at UWindsor

---

Major Papers

Theses, Dissertations, and Major Papers

---

January 2023

### COVID-19, Digitization, and the "New Normal" for Municipal Government: A Study of Three Ontario Cities

Justin Lee Grainger  
graingej@uwindsor.ca

Follow this and additional works at: <https://scholar.uwindsor.ca/major-papers>



Part of the [Other Political Science Commons](#)

---

#### Recommended Citation

Grainger, Justin Lee, "COVID-19, Digitization, and the "New Normal" for Municipal Government: A Study of Three Ontario Cities" (2023). *Major Papers*. 244.  
<https://scholar.uwindsor.ca/major-papers/244>

This Internship Paper is brought to you for free and open access by the Theses, Dissertations, and Major Papers at Scholarship at UWindsor. It has been accepted for inclusion in Major Papers by an authorized administrator of Scholarship at UWindsor. For more information, please contact [scholarship@uwindsor.ca](mailto:scholarship@uwindsor.ca).

**COVID-19, Digitization, and the “New Normal” for Municipal Government:**

**A Study of Three Ontario Cities**

By

**Justin Grainger**

An Internship Paper  
Submitted to the Faculty of Graduate Studies  
through the Department of Political Science  
in Partial Fulfillment of the Requirements for  
the Degree of Master of Arts  
at the University of Windsor

Windsor, Ontario, Canada

2023

© 2023 Justin Grainger

**COVID-19, Digitization, and the “New Normal” for Municipal Government:**

**A Study of Three Ontario Cities**

by

**Justin Grainger**

APPROVED BY:

---

T. Najem  
Department of Political Science

---

J. Sutcliffe, Advisor  
Department of Political Science

January 11, 2023

## DECLARATION OF ORIGINALITY

I hereby certify that I am the sole author of this thesis and that no part of this thesis has been published or submitted for publication.

I certify that, to the best of my knowledge, my thesis does not infringe upon anyone's copyright nor violate any proprietary rights and that any ideas, techniques, quotations, or any other material from the work of other people included in my thesis, published or otherwise, are fully acknowledged in accordance with the standard referencing practices. Furthermore, to the extent that I have included copyrighted material that surpasses the bounds of fair dealing within the meaning of the Canada Copyright Act, I certify that I have obtained a written permission from the copyright owner(s) to include such material(s) in my thesis and have included copies of such copyright clearances to my appendix.

I declare that this is a true copy of my thesis, including any final revisions, as approved by my thesis committee and the Graduate Studies office, and that this thesis has not been submitted for a higher degree to any other University or Institution.

## ABSTRACT

The COVID-19 pandemic is viewed as both an unprecedented challenge and an impetus for digital transformation. During the pandemic, a “new normal” discourse emerged predicting a surge in digitization that would radically and permanently change organizations. This paper examines how the pandemic has affected municipal governments through case studies of the City of Windsor, City of Kitchener, and City of Burlington. It compares how each city adapted to the pandemic through digitization and investigates if such changes have transformed citizen participation and governance in the cities under study. The paper focuses on two ways citizens engage with local government: voting in municipal elections and delegating to councils and committees. The paper aims to understand how municipalities facilitated citizen participation during a period of public health guidelines in the province of Ontario which restricted many in-person activities. It finds that digitization was limited in its extent and scope and identifies resource, security, and accessibility considerations as primary barriers to the adoption of digital technologies.

## DEDICATION

This work is dedicated to my family for their unwavering support that made my academic career possible.

## ACKNOWLEDGEMENTS

I wish to acknowledge my family, friends, and the faculty and staff at the University of Windsor's Department of Political Science without whom I would not have achieved this milestone. To my parents, Jon and Jodie, siblings Taylor, Dylan, and Paige, and grandparents Bill, Sherry, Louis, and Winifred, thank you for enabling me to pursue this degree and for your love and encouragement throughout my academic career. Thank you to the friends I've made while at the University of Windsor, especially Cameron Bortolon, Eric Hubberstey, and Sophia Lutfallah. I've relied on each of you for help and support during my time in Windsor. Thank you to the faculty and staff of the Department of Political Science, especially Dr. Cheryl Collier, Dr. John Sutcliffe, Joyce Zuk, Kelley Allard, Jennifer Forde, and Sandy Gomes. The numerous opportunities you've provided to me as an undergraduate and graduate student in our department have led me to a challenging and rewarding career in municipal government.

Finally, I wish to acknowledge my past and present colleagues. A special thanks to Steve Vlachodimos for your faith in me during my internship at the City of Windsor and for your continued mentorship as I start my career. I would also like to thank all my colleagues at both the City of Windsor and Town of Erin for their encouragement and advice during the research process.

## TABLE OF CONTENTS

DECLARATION OF ORIGINALITY .....	iii
ABSTRACT.....	iv
DEDICATION.....	v
ACKNOWLEDGEMENTS .....	vi
<b>Chapter One: Introduction and Research Design .....</b>	<b>1</b>
<b>Chapter Two: Literature Review .....</b>	<b>5</b>
<b>Chapter Three: Election Administration.....</b>	<b>16</b>
<b>Chapter Four: Council and Committee Meeting Management .....</b>	<b>26</b>
<b>Chapter Five: Analysis and Conclusion.....</b>	<b>32</b>
REFERENCES/BIBLIOGRAPHY.....	37
VITA AUCTORIS .....	54

# **Chapter One: Introduction and Research Design**

## **COVID-19 and Digitization**

The COVID-19 pandemic caused a marked shift in the way municipalities deliver services and interface with the public. As public health guidelines limited mobility and in-person interactions, organizations adapted primarily by leveraging digital technologies. In both academic and popular discussions of the pandemic, a “new normal” discourse has emerged emphasizing a technology-driven future. Roy observes that COVID-19 has “accelerated digital transformation across all sectors” (2022, p. 4). Similarly, an article by McKinsey & Company starts by pronouncing that “COVID-19 has pushed companies over the technology tipping point – and transformed business forever” (LaBerge et al., 2020, Title section). In the municipal context, changes such as hybrid or remote work arrangements and digital alternatives for customers were necessary to carry out many service-oriented functions during this period. However, local governments also promote citizen participation in decision-making processes (Sancton, 2015). The focus of this study is COVID-19’s impact on citizen participation and governance in the context of digitization. The paper will investigate whether the pandemic has transformed citizens’ interactions with municipal governments.

## **Key Terms and Scope**

Scholarship studying the incorporation of information technology (IT) in public administration is replete with theoretical terms, sometimes with overlapping meanings. Earlier work on the subject employed the concept of e-government. One definition adopted by Roy sees e-government as “The continuous innovation in the delivery of services, citizen participation, and governance through the transformation of external and internal relationships by the use of

information technology, especially the Internet” (2006, p. x). Another frequently employed term is digital government, a concept which evolved from e-government and is defined by the Organisation for Economic Co-operation and Development (OECD) as “the use of digital technologies, as an integrated part of governments’ modernisation strategies, to create public value” (2014, p. 6). Digital government departs from its predecessor in two main ways. It centres the “digital space” in its coverage of information and communication technologies (ICTs), capturing the present-day ubiquity of digital content (Janowski, 2015, p. 221). Also, it reflects the aims of public sector actors in creating “public value”, concentrating on citizens’ opportunities for interaction and engagement with government through digital media (Roy, 2019, p. 24). In this sense, the study is conceptually designed to examine digitization as it relates to the relationship between citizens and government. Determining the internal efficiencies municipalities derive from digitizing operations or services is beyond the scope of this study.

To avoid what Bannister and Connolly identify as “conceptual confusion” over its use, it is also necessary to define governance (2012, p. 7). They distinguish between “*structural*” and “*normative*” definitions, basically the process of decision-making versus the values which underly those processes such as transparency or accountability (Bannister & Connolly, 2012, p. 7). This study is concerned principally with the former. Bannister and Connolly define “*structural governance*” as “the ‘how’ of government” (2012, p. 7). Studies of governance can be distinguished from those of government. Bannister and Connolly consider multiple definitions. For example, they include Kim et al.’s (2005) who see governments as actors within a larger network of governance that enables stakeholders outside of government to influence the policy-making process.

This study is interested in how citizen participation changed during the pandemic through the use of ICTs. Therefore, the concept of eParticipation is regularly drawn on. Although the term lacks a universal definition, Sæbø, Rose, and Flak's continues to be referenced in scholarship on the subject. At the broadest level, eParticipation is "technology-mediated interaction between the civil society sphere and the formal politics sphere and between the civil society sphere and the administrative sphere" (Sæbø et al., 2008, p. 402). Their understanding of eParticipation is preferred because it identifies the role played by administration in citizen engagement. Additionally, they recognize the purpose of eParticipation as enabling increased citizen involvement in political processes which determine the makeup of deliberative bodies and the services offered by government (Sæbø et al., 2008).

### **Research Design and Methods**

This study addresses two interrelated questions. First, did the pandemic affect the digitization of citizen participation and governance at the municipal level? And, in cases where municipalities did adopt digital technologies, will these changes persist beyond the pandemic? These questions will be answered by conducting a comparative study of three municipalities: the City of Windsor, City of Kitchener, and City of Burlington. These cities were selected for comparison for two reasons. First, they are similarly sized, populated by 229,660, 256,885, and 186,948 residents respectively (Statistics Canada, 2021). Accordingly, they have similar spending capacities. Controlling for fiscal constraints is relevant given research indicating that small communities face challenges in developing and implementing technology which are not present in urban centres (Spicer et al., 2021). Second, all three cities are located in the province of Ontario and therefore have been subject to the same legislative and regulatory conditions relating to the pandemic.

The chosen cities will be compared across two relevant functions: election administration and council and committee meeting management. Their approaches to these functions during the pandemic will be examined to determine whether new opportunities for eParticipation were created. Furthermore, this study will attempt to determine if these changes are temporary responses to pandemic pressures or indeed represent a “new normal” distinguished by digitization.

To identify instances of digitization, data will be collected from a mix of primary and secondary sources. The next chapter will review relevant academic and grey literature on themes including public sector reform, eParticipation, and the pandemic’s present and future effect on digitization in government. The following chapters will predominantly draw on information published by the cities under study including reports to council, meeting minutes, video recordings and content from municipal websites.

The generalizability of this study’s observations will be limited. Municipalities vary within Ontario and across Canada in terms of their size, composition, and legal frameworks (Sancton, 2015). Consideration of these variables is beyond the scope of this study. Instead, a goal of this study is to add to the discourse on digital transformation which garnered renewed attention at the onset of the pandemic by considering its impact on municipal governance. Also, at the time of writing the future status of the pandemic is unknown, limiting the study’s predictive utility. Still, conclusions can be drawn from the available data given that basically all policies imposed by the province of Ontario relating to the pandemic have expired. Both public and private organizations have developed post COVID-19 plans and researchers and commentators alike have started identifying trends likely to continue beyond the pandemic (Mitchell, 2021; Turner & Baker, 2022).

## Chapter Two: Literature Review

### Digital Transformation

Early scholarship on the potential for IT to revolutionize the public sector often invoked the language of digital transformation and set out to model its progression (Ho, 2002; Layne & Lee, 2001). For example, Ho outlines the internet's potential for "reinventing local governments", seeing the prospect of e-government as a "paradigm shift" (2002, p. 434). In their critique of early optimism, Norris and Reddick (2013) find that e-government's integration at the local level has been gradual and piecemeal. They argue that transformation has failed to materialize, and furthermore, previous studies predicting the linear evolution of e-government do not accord with empirical data. Drawing on survey data of American local governments collected in 2004 and 2011, they contend that e-government adoption has by and large been limited to disseminating information and delivering services. Notably, their results show that technology was generally not being used to facilitate two-way interactions between governments and citizens and therefore lacked the participatory dynamic anticipated by early models. The binary they put forward, between "transformation or incremental change", is evident throughout scholarship about ICT in public administration (Norris & Reddick, 2013, p. 165).

More recently, scholars continue to see the transformation of government as a potential outcome of digitization. Lindgren and van Veenstra acknowledge that digital government is viewed as an "enabler" or "driver" of organizational change (2018, p. 1). In their paper, transformation is measured by whether public value has been created. In other words, they consider whether digital government initiatives lead to a "networked form of governance" (Lindgren & van Veenstra, 2018, p. 1). Their case study of Sweden's civil registration system found that digitizing

service delivery did not proceed due to obstacles such as the existing legal framework and institutional norms at responsible agencies. This conclusion demonstrates that digital transformation is a complex process affected by motivation and approval at multiple levels of organization beyond local authorities themselves (Lindgren & van Veenstra, 2018).

Modelling the development of digital government has also remained an objective of scholars. Janowski's (2015) analysis of digital government literature found patterns in researchers' observations, including that the integration of digital technologies becomes more specialized over time. Janowski's model sees digital government as a progression through four stages: digitization, transformation, engagement, and contextualization. Janowski's model starts with the integration of "Technology in Government" (2015, p. 226). To put it another way, his model expects transformation to occur only after the development of technological capacity and the conversion of information to digital formats. For Janowski, transformation means applying technology to enhance government processes and is typified by intentional, comprehensive reforms. The final stages include the use of technology to engage citizens and stakeholders in governance, ultimately affecting governments' policy agendas. One relevant limitation to this model acknowledged by Janowski is that not all digital government initiatives are amenable to rigid categorization. The initiatives considered in this study, such as the conversion of council or committee meetings to digital platforms or online voting, affect citizen engagement and correspond with multiple elements of Janowski's model (2015).

The discourse on digital transformation is further complicated by differing explanations on why governments vary in their adoption and use of technology to engage citizens or deliver services. Zhang and Feeney (2020) find administrative culture partly explains this variability. Focusing on governments' use of ICTs to encourage citizen participation, they contend that

technology has been leveraged primarily to facilitate one-way communication with the public. Moreover, they distinguish between two alignments among public administrators which affect ICT adoption and use: bureaucratic and participatory. Determining whether a government's culture was bureaucratic or participatory depended on respondents' ranking of values such as "organizational efficiency and effectiveness" and "community representation and responsiveness" in the decision-making process (Zhang & Feeney, 2020, p. 1431). They point out that behaviour is relevant given that senior public administrators play an important role in influencing the overall culture of their organization. Their analysis of 2016 survey data from municipal department heads in U.S. cities found that bureaucratic governments are less likely to adopt ICTs or use them to engage the public (Zhang & Feeney, 2020).

Connolly, Bode and Epstein test the significance of four factors to explain variable adoption, namely "resources, form of government, population, and citizen demand" (2018, p. 153). In effect, they determine why some municipalities are more likely to develop and sustain technological changes to service delivery. Their approach included interviews with city officials in municipal government and quantitative analysis of e-service provision in a random sample of U.S. cities. They found that the level of municipal resources and the size and age characteristics of a population are positively associated with increases to e-government service offerings (Connolly et al., 2018). Their results are partly consistent with Norris and Reddick's (2013) who find a lack of financial resources and tech-savvy personnel are obstacles to introducing e-government initiatives at the local level. Taken together, these studies illustrate some of the intricacies involved in determining the causes of diverse e-government outcomes. Even though this study does not attempt to explain heterogeneity in the adoption and use of technology by municipalities, scholarship on the subject is relevant to further validate case selection.

Understanding what motivates governments to undergo technology-driven reform is another area of inquiry evident in the scholarship. Cordella and Tempini (2015) identify and challenge an association in the literature between the introduction of ICTs in the public sector and New Public Management (NPM), an approach to management modelled after the private sector which seeks to “reduce bureaucratic burden” (p. 279). Beyond supposed organizational efficiencies, local governments are also reacting to external pressures and incentives. Spicer et al. note that municipalities experience pressure to become “smart cities” to attract residents and investments in the local economy (2021, p. 537). Their review of the smart city literature demonstrates the mainstreaming of this concept in the public sector. They shed light on the development of a business to government sector capitalizing on this pressure, offering technological solutions to issues faced by municipalities. Higher levels of government have also become involved in promoting smart cities. For example, they focus on the Government of Canada’s Smart Cities Challenge which incentivized technological innovation through a multi-million-dollar competition aimed at local governments. Spicer et al. conclude by identifying what they term a “tiered system” where some cities integrate technology and others do not with potential implications for economic competitiveness (2021, p. 550).

In Canada, the pace of technology-driven reform in government has been gradual rather than transformative (Roy, 2019). According to Roy, digital transformation has been constrained by multiple conventions in public administration. From his perspective, traditional models of administration are frequently based on “hierarchical control and information secrecy” and conflict with the creation of public value (Roy, 2019, p. 24). Using the Government of Canada as a case study, Roy examines the development of digital government through the lens of governance typologies. He suggests that digital government has not significantly progressed due to the

influential “ethos” of traditional public administration (TPA) and NPM (Roy, 2019, p. 36). He proposes an alternative through his approach to public value management (PVM) to foster greater levels of “service, openness and engagement” at the federal level (Roy, 2019, p. 35). Comparing Canada to international examples, Clarke, Lindquist, and Roy describe the country as an e-government “laggard” with regard to citizen engagement (2017, p. 459). Clarke et al. (2017) acknowledge that Canada’s approach to e-government was viewed as a nascent model, but the country has since fallen behind others such as Estonia and New Zealand despite encouraging developments at the sub-national level. Overall, digitization at the local level has received relatively limited attention in Canadian public administration scholarship. As will be discussed in the concluding chapter, this study contributes to the literature by examining the digitization of citizen participation and governance from a local perspective.

## **eParticipation**

EParticipation initiatives have been developed and implemented in the public sector by leveraging technology to facilitate interaction between citizens and government. The United Nations (UN) E-Participation Index (EPI) separates the concept into three dimensions (2020). The EPI measures how governments utilize digital technology to deliver information, consult the public, and democratize decision-making (UN, 2020). EParticipation frameworks have also been developed by scholars to assess the complexity and effectiveness of these initiatives. Porwol, Ojo and Breslin differentiate between three perspectives on eParticipation, showing that the concept has been understood “as [a] democratic process, a project and a deliberation platform” (2016, p. 583). However, they argue that new models are necessary to account for changing technology and the organic, citizen-initiated activity taking place on social media platforms (Porwol et al., 2016). The concept itself is useful in this study to differentiate initiatives that are predominantly or

exclusively delivered online from traditional forms of citizen participation. As noted in the literature, eParticipation initiatives are characterized by unique opportunities and challenges relating to accessibility (Le Blanc, 2020), transparency (Kim & Lee, 2012), and the policy-making process (Coelho et al., 2022).

Le Blanc (2020) asserts that while governments are increasingly deploying eParticipation tools which enable consultations and engagement, this trend has not led to increased citizen involvement overall. He emphasizes several underlying factors which explain this apathy. For example, he maintains the “digital divide” is pertinent as some communities lack the infrastructure necessary to facilitate online participation and further people variably possess the technical knowledge required to take advantage of eParticipation opportunities (Le Blanc, 2020, p. 16). This phenomenon is evident on the international scale considered by Le Blanc, but also at the sub-national level in Canada wherein rural high-speed internet availability lags urban areas. Nevertheless, a survey conducted by Kim and Lee (2012) indicates that eParticipation tools can positively affect citizens’ perceptions of government transparency depending on the user’s experience. Considered together, their assertions suggest that citizens’ perceptions of eParticipation and its value may be affected by both the quantity and quality of opportunities available to them.

Taking a similar approach to the question of eParticipation adoption, Choi and Song (2020) analyze survey data collected in 2019 from Seoul citizens regarding e-government at the local level. They propose a relationship between online citizen engagement and social capital. They show citizens who are community-oriented and trust government are more likely to use online participation tools. Notably, their results do not show a positive relationship between the perceived functionality or simplicity of applications and eParticipation engagement (Choi & Song, 2020).

Like digital government initiatives generally, isolating the incentives or disincentives for engagement requires attention to the user experience but also considerations such as pre-existing attitudes towards government and commitment from politicians and administrators responsible for these projects.

Like other scholars, Shaw (2018) acknowledges that e-government's evolution has not been transformative. Instead, she finds that governments have implemented "civic technology tools" – such as online forums – which enable interactivity but are dependent on the ongoing availability of resources (Shaw, 2018, p. 75). Her comparative study of eParticipation applications in American cities included interviews with administrators and citizens. Her observations align with those of previously discussed scholars. She shows eParticipation applications return a complicated mix of challenges and opportunities to both citizens and administrators. For example, citizens indicated a perceived increase in their ability to influence policy but were challenged by user experience issues. Administrators reported benefits of citizen feedback relating to service delivery but noted budgetary constraints limiting the applications' sustainability (Shaw, 2018).

Online voting is one area of eParticipation which has received considerable attention from scholars. Still, researchers usually do not usually consider online voting's integration within the overall context of digital transformation. Instead, they tend to focus on technical questions relating to its viability or consider its effect on voting behaviour. Writing on the 2018 Ontario municipal elections, Cardillo, Akinyokun, and Essex (2019) identify a lack of federal or provincial standards in the deployment of online voting despite its increasing popularity. They find Ontario's *Municipal Elections Act, 1996* (MEA) contains few provisions relating to alternative voting methods and gives municipalities broad discretion to establish procedures on an individualized basis. They note that since its authorization in 2003, online voting has dramatically increased as a mode of delivery

among Ontario municipalities. Yet, Cardillo et al. maintain that this system leads municipalities to rely on the technology and expertise of vendors to deliver elections, with potential implications for integrity and security. They overview the 2018 elections during which dozens of municipalities were required to declare an emergency and extend their voting periods due to the temporary slowdown of voting websites. They point out the cause of this disruption related to a co-location provider's allowed system bandwidth which in turn limited voting traffic (Cardillo et al., 2019).

Goodman and Spicer (2019) take a holistic approach to online voting and further acknowledge and contextualize its transformative potential. They consider online voting's overall effect on election administration with the aim of understanding the rationale for its use from the perspective of public administrators. Using survey data of public administrators regarding the 2014 Ontario municipal elections, they identified multiple factors which help explain why some municipalities deliver elections online while others do not. They show that administrators reported a mix of costs and benefits. The benefits of adoption primarily related to the citizens' opportunities and experience – online voting was viewed as a convenient option which improved voter participation and made the election process more accessible. Notably, administrative efficiencies or cost savings derived from online voting did not appear to factor significantly into administrators' rationales. The reported challenges related to communicating online voting to the public, the digital literacy and internet access of citizens, and security risks (Goodman & Spicer, 2019).

Goodman and Spicer's (2019) observations further illustrate the relevance of the digital divide in the provision of online services. Elections delivered exclusively or predominantly online need to address the issues of variable digital literacy in the population and whether broadband infrastructure is sufficiently reliable and available to residents. Additionally, Goodman and

Spicer's (2019) results demonstrate that small and large communities prioritize different rationales for implementing online voting. Respondents from small municipalities were more likely to see online voting as reducing administrative burden. Respondents from large municipalities more often emphasized online voting's benefits to citizens (Goodman & Spicer, 2019).

The following chapters will further explore the variable adoption of ICTs. Additionally, the section on election administration will show the ongoing relevance of security and accessibility in the context of the 2022 Ontario municipal elections. The second function considered in this study, council and committee meeting management, is more difficult to categorize within the eParticipation umbrella. However, at the broadest level meetings where both decision-makers and delegates participate virtually intersects with aspects of "e-consultation" and "e-decision-making" in the EPI framework (UN, 2020, p. 250). The rationales for the adoption of virtual meetings are similar to online voting, proponents suggest they make meetings more accessible to a more diverse range of citizens due to their convenience (Chandler, 2020). In the municipal context, electronic participation in council meetings is by and large a relatively recent change made in response to the pandemic to enable business continuity. While originally considered a temporary measure, advocates have petitioned legislators to make remote meetings a permanent option (Scott, 2021). The chapter on council and committee meeting management will provide details on the Ontario experience, starting with the legislative context for electronic participation and moving on to the cases.

### **COVID-19: An Opportunity for Digital Transformation?**

The pandemic brought with it unprecedented challenges for governments as they attempted to deliver services and engage citizens while abiding by public health guidelines. While much of

the digitization undertaken by the public sector during this period was originally viewed as an emergency response, observers have questioned if the crisis will serve as a “catalyst” for permanent change (OECD, 2020, p. 3). Research from the OECD (2020) exploring this potential found government decision-making was an area where normal procedures were significantly disrupted. They point to numerous examples of legislatures around the world which adapted by moving proceedings online and enabling voting and deliberation through digital platforms. In this area, however, researchers suggest that these changes would likely be temporary. Nevertheless, they predict that digital participation, both at the citizen and legislative level, will continue to be evaluated even after the crisis stage of the pandemic (OECD, 2020).

In Canada, Boin et al. discuss the question of transformation in government responses to COVID-19, seeing the pandemic as “both an accelerator and disruptor of digital government” (2020, p. 359). They consider two examples of digitization during this period: pandemic support and mobile applications. They see the Government of Canada’s pivot to digital channels to quickly deliver social assistance to citizens and companies as a departure from previous examples of digitization predating the pandemic characterized by “technological system mishaps” (Boin et al., 2020, p. 361). Concerning mobile applications, they point to success stories in Singapore and South Korea where apps were effectively utilized for contact tracing. However, they point out Canada’s ability to deliver such an app may be impacted by “traditional federalism” (Boin et al., 2020, p. 362). With the benefit of hindsight, reporting on Canada’s COVID Alert app suggests that the initiative suffered from limited buy-in and was shut down in 2022 (Yun, 2022). Similarly, the Government of Canada’s ArriveCan app for cross-border travel was made optional following advocacy from politicians representing border communities (CBC News, 2022a).

Writing on the future of work-from-home in the Government of Canada, Roy submits reforms of this nature are affected by the influence of “incrementalism” in government which predates the pandemic (2022, p. 10). Concerning the municipal level, Roy adds that local governments may need to deploy and retain hybrid work options to attract workers but are less equipped to do so due to limited resources relative to higher levels of government. Like other areas of digital reform, remote or hybrid work’s future is influenced by both internal and external pressures. Roy’s report suggests public workers are supportive of making out-of-office work permanent, and further governments may struggle to attract human talent in a competitive labour market without such options (2022).

Even more than the research discussed above, this study benefits from considering the prospects of digital government initiatives beyond the pandemic. At the time of writing, municipal governments in Ontario are no longer required to digitize to address pandemic constraints. Therefore, the initiatives which remain in place in the cities under study will shed light on whether the pandemic did in fact spur digitization. On the other hand, in cases where functions continued in-person despite the pandemic or returned to an in-person model when possible, the trade-offs involved in digitization will be investigated.

## Chapter Three: Election Administration

### Online Voting

The use of online voting technology to deliver municipal elections in Ontario has steadily increased since the authorization of such methods approximately two decades ago. Data collected by the Association of Municipalities of Ontario (AMO) (2022) indicates 217 municipalities offered internet and/or telephone voting in 2022. In 2018, that figure was around 175 municipalities (AMO, 2022). The Association of Municipal Managers, Clerks and Treasurers of Ontario's (AMCTO) most recent post-election survey found that municipalities that offer internet voting do so to improve turnout and accessibility, modernize, or address costs (2018). However, despite its increasing availability, reporting from Chughtai (2022) found that online voting's impact on turnout is negligible. Data collected by Chughtai shows no clear relationship between online voting and turnout – some municipalities experienced a boost in turnout whereas others saw a decline following its introduction. Overall, average voter turnout has trended downward in many Ontario municipalities since at least 2000 (Chughtai, 2022).

Nevertheless, the pandemic challenged the feasibility of in-person voting methods and may have factored into the planning undertaken by administrators in the cities under study. From a legislative standpoint, s. 42 (*Municipal Elections Act, 1996a*) of the MEA allows the council of a municipality to authorize alternative voting methods and s. 53 (*Municipal Elections Act, 1996b*) provides the clerk with the ability to declare an emergency and modify the conduct of an election. In other words, municipalities have broad discretion to deliver elections how they see fit and to account for emergencies such as pandemics. The remainder of this chapter will compare how each

city under study administered the elections of 2022 and 2018 to determine if changes caused by the pandemic are evident.

### **City of Windsor**

The City of Windsor is unique among the cities under study in that a by-election conducted in 2020 filled a vacancy on City Council (Knight-Lepain, 2019). Originally planned for April 27, 2020, City Clerk Valerie Critchley declared an emergency under the MEA postponing the by-election (City of Windsor, 2020a). The City's decision sought to ensure the availability of polling places as well as the health and safety of participants and acknowledged the difficulties associated with delivering an in-person election while maintaining physical distancing (City of Windsor, 2020a). At the time of the City Clerk's declaration, the nomination period had ended and the special authority under s. 53 of the MEA was necessary to modify the timeline of the election. Administrators rescheduled Voting Day for October 5, 2020, with advance voting days during the preceding week.

Notably, the measures taken by the city to deliver the election during the pandemic, while extensive, did not involve leveraging additional technology such as online voting. Instead, in-person voting was conducted with COVID-19 safety measures in place such as election workers assigned to health screening or sanitizing surfaces (Manton et al., 2021). The city's approach is overviewed in a presentation delivered by election administrators from several municipalities (Manton et al., 2021). That presentation discussed how staff in Windsor asked members of the public to adhere to various public health guidelines while at voting places such as masking, distancing, occupancy limits, and the submission of information for contact tracing. Staff addressed accessibility in part through allowing voters to vote at any polling location within the

ward. Further, for individuals experiencing illness and quarantining, the city offered and encouraged proxy voting. Finally, Windsor implemented curbside voting, a model where voters had the option to park and remain in their vehicle with election workers assigned to provide ballots and retrieve them once completed. Other municipalities which delivered by-elections during the pandemic, such as the City of Ottawa and Town of Pelham, offered remote voting through vote-by-mail rather than using a digital alternative (Manton et al., 2021).

In 2022, the City of Windsor delivered the municipal election again through in-person voting only, using paper ballots and vote tabulators (City of Windsor, 2022a). The pandemic protocols put in place for this election closely resembled the 2020 by-election. These measures included masking, distancing, and sanitizing at polling places (City of Windsor, 2022b). Additionally, the city retained proxy and curbside voting for individuals experiencing COVID-19 symptoms or awaiting test results. Proxy voting allowed an eligible elector unable to attend a polling place to designate another individual to vote on their behalf subject to obtaining a proxy certificate (City of Windsor, 2022c). The city offered curbside or “drive-thru” voting at some polling locations during advanced voting days, a method which accounted for approximately 50 percent of the votes cast in the 2020 by-election and garnered positive feedback from residents (Fortnum, 2022, para. 5). The city did use technology to automate or enhance aspects of the election. Initiatives included an online voters’ list lookup tool, an exit survey posted on the city’s website and through a scannable QR code at polling stations, and dedicated Elections Windsor social media channels for communications (City of Windsor, 2022d). However, the vote method was the same as the 2018 election according to post-election data from the Ontario Ministry of Municipal Affairs and Housing (MMAH). Their dataset shows the city did not utilize alternative methods such as vote-by-mail, telephone, or internet voting in the previous city-wide election

(MMAH, 2020a). In comparison to 2018, it is evident that the pandemic modified the election, but not with regard to the use of digital technology. For example, the 2022 election saw the city no longer use schools as polling stations. This difference was due in part to the risk associated with a surge in the community spread of COVID-19 (Campbell, 2022).

The turnout for the 2022 election was approximately 3.5 percent lower than in 2018, reflecting a broader trend across Ontario at the local level (CBC News, 2022b). An administrator from the city interviewed by *CBC News* after the election indicated alternative voting methods such as internet voting were not considered, stating “That wasn’t something we explored this time, just due to cost and resourcing constraints and the pandemic and the availability of technology” (2022b, para. 9). Still, staff pointed to the implementation of a new election management system and a consultation with residents and candidates planned for 2023 as initiatives which enable the future adoption of alternative voting methods and garner feedback, respectively (CBC News, 2022b).

### **City of Kitchener**

The City of Kitchener considered alternative voting methods in 2021 through a series of public consultations and reports to City Council. The largest consultation was an online survey published on the city’s Engage Kitchener platform asking respondents about their experiences during the 2018 election and their preferred voting method for 2022 (Engage Kitchener, 2021). The survey also received media attention promoting the use of online voting. One editorial published by *The Record* (2021) argued that the city should adopt online voting to improve turnout and address the issue of voter apathy in Kitchener. The article implied the city’s reputation as a

“high-tech heavy-hitter” was at stake and pointed out that five nearby municipalities, including the City of Cambridge, allowed residents to vote remotely in 2018 (Record Editorial, 2021, para. 12).

Following the completion of the survey and other engagement opportunities such as interviews with stakeholder groups, administrators presented a report to the city’s Finance and Corporate Services Committee at its November 8, 2021, meeting. In that report, staff recommended City Council enact a by-law authorizing internet voting for advanced voting days during the 2022 election (Boomer, 2021a). In their analysis, staff discussed trends in AMO and AMCTO data indicating that municipalities increasingly offer more than one voting method, and further that internet voting is the preferred supplementary method. Additionally, the report acknowledges the impacts of the pandemic in relation to digitization, stating:

While there was a notable trend towards technology-based voting methods before the global pandemic, COVID-19 has since created a climate where the City will need to consider the benefits of a remote voting method at least as a supplementary means of voting for electors. (Boomer, 2021a, p. 82)

In reference to the survey, staff’s presentation to the committee indicated that, among 1,025 respondents, approximately 58 percent ranked internet voting as their most preferred method (City of Kitchener, 2021a). In discussing the trade-offs involved in their recommendation, staff’s report endorsed using paper ballots and tabulators on Election Day with internet voting during advanced polls only (Boomer, 2021a). From their perspective, this approach enabled increased accessibility and limited contact resulting from in-person voting if public health measures relating to the pandemic resumed. Still, staff advised against adopting internet voting exclusively due to the *negative* impact this method would have on accessibility, particularly for individuals without

internet access. Regarding financial considerations, staff estimated that the total cost of administering the election using the recommended two-method approach at about \$633,400, an escalation compared to the 2018 election which saw the city spend approximately \$560,000 (Boomer, 2021a).

At the November 8<sup>th</sup> meeting, the Finance and Corporate Services Committee received a delegation in opposition to the recommendation expressing concerns regarding cybersecurity and the risks of internet voting (City of Kitchener, 2021a). During the committee's discussion of the item, members asked staff and the delegate questions regarding election integrity in the context of internet voting. For example, one committee member commented on family voting, stating "it's very difficult for us to gauge that level of privacy and secrecy of a person's ability to vote when they're voting at home, especially electronically online" (City of Kitchener, 2021a, 2:12:30). The member also discussed the effect of internet voting on seniors who are not tech-savvy and pointed out that senior levels of government have not adopted this method. Another member questioned the relevance of the pandemic in staff's report and commented on accessibility, stating:

It seems to me that the framing of why this [internet voting] would be a good thing is based on accessibility during the pandemic, I'm a bit puzzled by that because most things are fully open now, and when we talk about accessibility for those that don't have computers, or their computer may crash at home, accessibility is reduced to zero (City of Kitchener, 2021a, 1:50:13)

The committee resolved to proceed with paper ballots and tabulators for the 2022 election and further directed staff to report back on the viability of mail-in ballots as an alternative voting method, in effect rejecting staff's recommendation (City of Kitchener, 2021b).

At the November 22<sup>nd</sup> meeting of City Council staff reported back on vote-by-mail as an alternative method. In that report, staff recommended against the use of mail-in ballots in the 2022 election in part due to the risk of a disruption to the postal system and the additional resources required to administer the alternative (Boomer, 2021b). Council resolved to direct staff to proceed with an in-person election only (City of Kitchener, 2021c). The city delivered its election using paper ballots and tabulators. Electors residing in all wards could vote in-person at five polling locations over four days from October 12, 2022, to October 15, 2022 (City of Kitchener, 2022a). On Election Day, electors could cast their ballot at any polling location within their ward. To address the pandemic, the city implemented “parking lot voting” – a system whereby electors who tested positive for COVID-19 could park their vehicle at a polling location and remain there by dialing a phone number requesting staff to provide and return their ballot (City of Kitchener, 2022a, Other Ways to Vote section). Further, the city offered proxy voting allowing electors to appoint another elector to vote on their behalf (City of Kitchener, 2022b). The city’s procedure required electors and their proxies to complete a standard form and its website included a booking portal to have applications reviewed and certified by staff. However, the city also established an alternative for homebound electors allowing their appointment to appoint a proxy to take place at their home (City of Kitchener, 2022b). Nevertheless, concerns around accessibility were raised in a *CBC News* article prior to Election Day regarding the availability of the proxy system and the lack of remote voting methods (Bueckert, 2022a). In the area of technology, the city’s website included a voters’ list and voting location lookup tool (City of Kitchener, 2022a). The city also utilized digital channels such as YouTube to communicate information about the election including how to vote and why voting matters (City of Kitchener, 2022c).

By comparison, in 2018 the city delivered the election using the same voting method, electors voted using paper ballots either in-person at polling locations or by designating a proxy and ballots were counted using tabulators (Tarling, 2019). Staff's report to the Committee of the Whole following the 2018 election indicates assessment of internet voting was conducted during the planning process but this method was not adopted (Tarling, 2019). Prior to that, a report to the Finance and Corporate Services Committee was received for information and identified numerous risks relating to the security of internet voting including the susceptibility of municipal servers or voters' computers to cyber-attacks (Gosse, 2012). Like the City of Windsor, staff addressed the challenges posed by the pandemic using in-person accommodations within the overall context of traditional voting methods. While both cities deployed digital technologies in the areas of voter registration and communication, their respective election procedures resembled those implemented prior to the pandemic.

### **City of Burlington**

Diverging from the elections administered by the cities of Windsor and Kitchener, the City of Burlington authorized internet voting for the 2022 election. At the September 17, 2020, meeting of Burlington's corporate services standing committee, administrators reported on the election and recommended proceeding with a request for proposals (RFP) to secure internet voting and tabulator vendors for the 2022 election (Office of the City Clerk, 2020). In staff's report to the committee, they outline the city's history of utilizing internet voting. They note that internet voting has been offered by the city since 2010, and that for the 2018 election it was available during the advanced voting period which saw approximately 37 percent of electors use this method. Acknowledging the bandwidth issue experienced by some Ontario municipalities who used internet voting in 2018 and had to extend their voting periods, staff recommended its use for

advanced voting only in 2022. Like Kitchener, staff identified security risks related to internet voting, however they pointed to updating technical requirements during the RFP process and third-party risk assessment as mitigating measures (Office of the City Clerk, 2020). At its September 28, 2020, meeting, Burlington's City Council moved staff's recommendations (City of Burlington, 2020a).

In April 2022, staff returned to the corporate services standing committee recommending that City Council enact a by-law authorizing internet voting for the upcoming election (Office of the City Clerk, 2022). In that report, staff outlined the 2022 election plan and the results of the RFP process. In their rationale for adopting internet voting, staff did not reference the pandemic but did indicate that the selected product provided an "accessible system" (Office of the City Clerk, 2022, p. 3). Further, the report indicates a "scalable microsite dedicated to the election" will be deployed to avoid website traffic slowdowns experienced by the city in 2018 (Office of the City Clerk, 2022, p. 3). City Council approved the by-law proposed by staff at the following regular meeting (City of Burlington, 2022a).

Burlington's 2022 election offered three ways to vote, online from October 11<sup>th</sup> to 20<sup>th</sup> and in-person either at advanced polls held over four days or on election day (City of Burlington, 2022b). Online voting was delivered through a multi-stage process wherein electors received a Voter Information Letter containing a registration code, visited an online portal to enter their information, and then finally received a voting PIN by email or text message and a link to the voting website (City of Burlington, 2022b). Unlike Windsor and Kitchener, Burlington did not offer a voting option which allowed an elector to remain in their vehicle if they were isolating due to COVID-19. However, the city did offer and promote proxy voting as an alternative for individuals who are isolating (City of Burlington, 2022c). Consistent with the downward trend in

turnout observed across the province, Burlington recorded a participation rate of approximately 27 percent, an around 12.5 percent decrease compared to the city's 2018 results (Sadewo, 2022).

## Chapter Four: Council and Committee Meeting Management

### Virtual Meetings in Ontario

In response to the pandemic, the Government of Ontario introduced legislation which enabled municipalities to continue conducting business during an emergency. Bill 187, the *Municipal Emergency Act, 2020* received Royal Assent in March of that year and amended the *Municipal Act, 2001* to permit electronic participation in council, local board, and committee meetings during a declared emergency (*Municipal Emergency Act, 2020*). Bill 68, *Modernizing Ontario's Municipal Legislation Act, 2017* allowed for electronic participation during meetings, but these members could not be counted for the purposes of determining quorum (*Modernizing Ontario's Municipal Legislation Act, 2017*). The legislation provided municipalities with the discretionary authority to amend procedure by-laws to allow members participating electronically to be counted towards quorum during meetings (MMAH, 2020b). Originally intended to be a time-limited allowance during an emergency such as the pandemic, electronic participation in council, local board, and committee meetings were made permanent by legislation introduced in the summer of 2020. Bill 197, the *COVID-19 Economic Recovery Act, 2020* further amended the *Municipal Act, 2001* by repealing subsection 238 (3.3), the declared emergency stipulation, and replacing it with broad, permissive language (*COVID-19 Economic Recovery Act, 2020*).

The current legislative context provides for electronic participation indefinitely, allowing municipalities to determine, through amendments to their procedure by-laws, whether and in what form it will be permitted (MMAH, 2020c). Conducting hybrid or virtual meetings has brought with it unique challenges and considerations related to accessibility for council and committee members, the public, and administrators responsible for managing meetings. For example, digital

literacy, internet connectivity, access to technology, and the security of digital platforms are relevant according to one research project conducted by Ontario municipal associations (Raponi & Del Greco, 2020). The remainder of the chapter will overview the approaches taken by each city under study, comparing how meetings were conducted at the beginning of the pandemic to the present.

### **City of Windsor**

At a Special Meeting in March, 2020, City Council approved amendments to the city's procedure by-law allowing electronic participation on an experimental basis during the pandemic (City of Windsor, 2020b). At the beginning of the pandemic, the mayor and members of City Council participated in council meetings via conference call while members of staff remained in-person at City Hall (City Windsor, 2020c). At the April 27, 2020, Special Meeting of City Council, the meeting was conducted completely virtually via a digital platform (City of Windsor, 2020d).

At the July 27, 2020, meeting of City Council, staff recommended continuing electronic participation for members for a period of one year following the expiration of a declared emergency (Critchley, 2020). In their report, staff explain why delegations had been limited to written submissions only up to that point. Regarding delegations, the report outlines challenges related to facilitating virtual delegations such as the need for additional staff and IT support during meetings and the digital literacy of participants. Additionally, the report recommended City Council approve a hybrid meeting option as it maximized participation to the extent feasible according to public health guidelines (Critchley, 2020). Council resolved to approve the one-year extension for electronic participation, approve the hybrid meeting option to be implemented when possible, and allow members of the public to delegate electronically (City of Windsor, 2020e). In

2020, most council meetings were held virtually except for a brief restart of in-person meetings in a hybrid format with council members, delegates and staff participating either in-person at City Hall or remotely in September of that year (Borrelli, 2020).

In November 2021, staff reported back to City Council on meeting procedures during the pandemic (Vlachodimos, 2021). In that report, staff recommended amending the procedure by-law to change the time of council meetings from 6:00PM to 1:00PM as part of a pilot project. The report notes that delivering hybrid council meetings has resulted in additional resource demands and that holding meetings at an earlier time allows for staff to be present in the event of technical difficulties (Vlachodimos, 2021). That month also saw the city reintroduce a hybrid model allowing members of council to participate in-person or virtually with positive reception from at least one councillor who praised the convenience of virtual delegations for members of the public (Cross, 2021). In July 2022, Windsor returned to a mostly in-person model wherein meetings are conducted in-person by default subject to requests for virtual participation from members of City Council or the public (City of Windsor, 2022e).

### **City of Kitchener**

At the beginning of the pandemic, the City of Kitchener did not permit in-person delegations, instead encouraging members of the public to submit written comments in advance of the meeting as City Hall was closed to the public (Deutschmann, 2020). At an August 10, 2020, Special Meeting, staff recommended to City Council an amendment to the city's procedural by-law to permit members to participate virtually in open and closed meetings (Bunn, 2020a). Staff's report notes that in March and June of that year, City Council passed resolutions authorizing electronic meeting participation on a temporary basis during a declared emergency at both the

council and committee levels. In that report, staff identify the need to engage members on their experience with virtual meetings and report back on potential permanent changes as part of a procedure by-law review (Bunn, 2020a). Staff's recommendation was approved unanimously (City of Kitchener, 2020a). Kitchener did not allow members of the public to delegate virtually at council meetings until October 5, 2020 (City of Kitchener, 2020b).

Staff reported on their procedure by-law review at the December 7, 2020, meeting of the Finance and Corporate Services Committee (Bunn, 2020b). In that report, staff recommended continuing electronic participation in council meetings post-pandemic in a hybrid format and subject to limitations. In their analysis of eParticipation's viability, staff overviewed advantages such as flexibility for the public and members of City Council, and the ability to continue conducting business should a pandemic limit in-person gathering. Regarding disadvantages, staff highlighted inadequate technology in the Chamber, negative public perception, and meeting security. In their interviews conducted with members of City Council, staff indicate that members supported hybrid meetings but only for personal emergencies. Staff preferred in-person meetings, but acknowledged eParticipation opportunities improve accessibility, stating:

It is staff's opinion that in-person meetings provide the most accessible, transparent, and accountable opportunity for the public to participate in local government. Providing for e-participation post-pandemic will accommodate delegations facing barriers, such as childcare or transportation, as well as enabling participation for members of Council facing extraordinary circumstances. (Bunn, 2020b, p. 5).

Cost also factored into staff's assessment. The report identifies the need for at least \$10,000 to \$15,000 in upgrades to the technical infrastructure in the Chamber to enable hybrid meetings, with

costs exceeding \$350,000 for an extensive improvement (Bunn, 2020b). At the February 22, 2021, meeting of City Council, staff's recommended amendments to the city's procedure by-law were adopted (City of Kitchener, 2021d).

Staff returned to the Finance and Corporate Services Committee in April 2022 with a protocol for hybrid meetings as part of a pilot to be reviewed in 2023 (Fusco & Saunderson, 2022). That report acknowledges the expiration of pandemic policies implemented by the Government of Ontario but recommends continuing eParticipation through a hybrid approach. Regarding accessibility, staff reiterated the benefits of enabling both in-person and virtual participation for delegations facing barriers related to working hours and location, the time-commitment required for in-person delegates, and family responsibilities. From a cost perspective, staff highlighted the need for additional resources to facilitate hybrid meetings, both in terms of upgrades to technology in the Chamber and the complement of staff required at meetings (Fusco & Saunderson, 2022). In 2022, the city held most council meetings virtually, but restarted in-person meetings in August of that year in a hybrid format with some members of City Council and delegates participating remotely since that time (City of Kitchener 2022d).

### **City of Burlington**

At the start of the pandemic, the City of Burlington did not allow in-person delegations and required members of the public to submit written comments in advance of council meetings (City of Burlington, 2020b). At its March 24, 2020, Special Meeting, City Council passed amendments to the city's procedure by-law enabling members to virtually participate in future meetings (City of Burlington, 2020c). In April 2020, City Council meetings transitioned to a hybrid format wherein the mayor presided over meetings in-person at Council Chambers, staff were present in-

person to facilitate the meeting, and members of City Council participated remotely (City of Burlington, 2020b). By August of 2020, remote delegations were allowed during council meetings (City of Burlington, 2020d). During this period, only Council Chambers was webcast to the public, while remote participants including staff, delegates, and members of City Council transmitted audio only.

In September 2021, staff reported to the city's corporate services standing committee following previous direction from City Council regarding a hybrid model for council and committee meetings that allows both in-person and virtual participation (Office of the City Clerk, 2021a). Staff's report outlined numerous considerations to facilitate hybrid meetings on an ongoing basis. Regarding the pandemic, staff's plan included public health measures such as physical distancing, masking, and plexiglass barriers. Additionally, they identify resource impacts if the hybrid model is implemented such as the need to purchase additional technology and potentially increase the complement of staff present during meetings (Office of the City Clerk, 2021a). Staff returned to the committee in November of 2021 to present a strategy for hybrid council and committee meetings and at that time indicated their assumption that the hybrid model would carry on beyond the pandemic (Office of the City Clerk, 2021b). Staff plans for hybrid meetings received final approval at the March 22, 2022, City Council meeting (City of Burlington, 2022d). Since that time, the city has phased in hybrid meetings allowing members of City Council and the public to participate either in-person or virtually (City of Burlington, 2022e).

## **Chapter Five: Analysis and Conclusion**

Returning to this study's research questions, the data indicates the pandemic's effect on digitization in the cities under study was limited across both functions and moderated by multiple factors. New opportunities for eParticipation were created during this period that appear likely to persist beyond the pandemic, but only for council and committee meetings.

In the area of election administration, all three cities conducted their elections using methods and procedures that did not differ significantly from their respective 2018 elections. The only municipality that offered online voting, the City of Burlington, had done so in previous elections. The cities of Windsor and Kitchener did not provide a remote alternative for voters in 2022. The pandemic affected how each city conducted their election, however, in-person measures were employed instead of implementing additional digital technologies. In the cities of Windsor and Kitchener, voters could cast ballots from their vehicle and proxy voting was also offered for individuals experiencing COVID-19 symptoms and isolating. The City of Windsor implemented other public health measures such as masking, physical distancing, and sanitizing surfaces at polling locations. The City of Burlington also offered proxy voting and promoted it for individuals isolating due to COVID-19. Except in the case of Burlington, where technology was implemented, it was limited to voter registration and communications.

Regarding council and committee meeting management, all three cities have transitioned to hybrid models that permit virtual participation beyond the expiration of provincial or municipal policies limiting in-person gatherings. From 2020-2021, all three cities conducted most meetings through a digital platform; initially, however, members of the public were limited to written submissions and could not delegate virtually. In 2022, all three cities returned to in-person

meetings but retained or implemented a hybrid model providing council members and the public with the option of participating virtually. In Burlington, this change appears permanent based on information provided in a report to council (Office of the City Clerk, 2021b). In Windsor and Kitchener, some changes to meetings made in response to the pandemic have been approved on a time-limited basis as part of pilot projects.

This study has shown that, in the cases examined, digitization during the pandemic in the areas of citizen participation and governance has not been transformative but rather limited in its extent and scope. Each city's approach to digitizing elections and council and committee meetings was informed by a combination of costs and benefits, especially around resource constraints, security, and accessibility that ultimately led to circumscribed changes.

This conclusion is consistent with findings from scholars. For elections and council and committee meetings, administrators identified resource limitations including the costs of technology and personnel. While this may not have inhibited digitization, the relevance of resource considerations was evident in all cases. Norris and Reddick (2013) and Connolly et al. (2018) similarly observe a relationship between the introduction of e-government initiatives at the local level and the availability of resources. Connolly et al. conclude that the relevance of resources depends on the service being offered but point out "interactive services" require continuous attention from staff and therefore are positively associated with spending on personnel (2018, p. 158). Both studies distinguish between financial and human resources, and in all three cities under study the need for additional personnel to facilitate eParticipation during council and committee meetings was identified.

In the cities of Kitchener and Burlington, reports to council during the election planning process identified security risks related to online voting. In Kitchener, these risks factored into a standing committee's decision to reject staff's recommendation to implement online voting (City of Kitchener, 2021b). As part of their rationale for deploying an election microsite, Burlington staff pointed to the slowdown experienced by some Ontario municipalities in 2018 which caused extensions to voting periods (Office of the City Clerk, 2020). These considerations mirror risks identified by Cardillo et al. (2019) who determined voter authentication and emergency extension issues were evident among some Ontario municipalities that offered online voting in 2018.

Accessibility factored into numerous reports to council and clearly informed decisions on the viability of digitization. Notably, digitization's complex effect on accessibility was recognized by both administrators and decision-makers. In Windsor, staff identified challenges to facilitating live delegations during virtual meetings depending on the technical proficiency of citizens (Critchley, 2020). Still, one Windsor City Councillor praised the convenience of virtual delegations for members of the public implying that the option removes barriers to participation (Cross, 2021). Administrators in Kitchener maintained that online voting would positively impact accessibility if utilized as a supplementary voting method, especially in the context of the pandemic (Boomer, 2021a). However, staff recommended against online voting's exclusive use due to its negative effect on accessibility for individuals without internet access (Boomer, 2021a). Members of Kitchener's City Council also questioned if individuals without the skills or equipment necessary to vote online would be adversely affected (City of Kitchener, 2021a). Discussing the trade-offs associated with eParticipation during council meetings, Kitchener staff suggested it enhances accessibility for citizens facing barriers such as adequate transportation but indicate that its use may contribute to a public perception that meetings are *less* accessible (Bunn,

2020b). These considerations reflect the need to balance digital forms of citizen participation with in-person alternatives. EParticipation may promote accessibility among certain demographic groups while simultaneously discouraging involvement from others. In this respect, the study confirms the ongoing relevance of the digital divide which Le Blanc (2020) sees as a challenge to eParticipation as people may be excluded depending on their digital literacy and access to technology.

This study contributes to the literature on digitization in government by considering whether citizen participation and governance were affected by the COVID-19 pandemic in three Ontario cities. The study compared how municipalities administered elections and conducted meetings at multiple stages of the pandemic and differs from research undertaken earlier in the pandemic by examining if digitization persisted beyond the period of public health guidelines in Ontario which necessitated such changes. Future research should explore the relevance of municipal size and location. Do smaller, rural municipalities face additional challenges creating opportunities for eParticipation compared to larger, urban ones related to resource constraints and the digital divide? Additionally, this study did not consider the effectiveness of eParticipation from the perspective of citizens. Given the relevance of citizen demand in the viability of eParticipation opportunities, future work could ascertain citizens' views on digitization during the pandemic in the cities under study through surveys or interviews.

To conclude, while the pandemic remains a dynamic phenomenon, the “new normal” that’s emerged from it closely resembles the status quo which preceded it with regard to digitization in the cities of Windsor, Kitchener, and Burlington. Ontario municipalities continue to experience low levels of citizen participation, several cities reported sizeable decreases in voter turnout during the 2022 municipal elections as compared to 2018 (Bueckert, 2022b). Understanding whether

eParticipation opportunities promote engagement, especially among young people, merits future research. However, maximizing accessibility does not necessarily require what KPMG and others have termed “going digital” (n.d., Title section). This study’s cases demonstrate how municipal governments determine the optimal combination of in-person and digital opportunities for citizen participation.

## REFERENCES/BIBLIOGRAPHY

- Association of Municipal Managers, Clerks and Treasurers of Ontario (AMCTO). (2018). *AMCTO post-election survey: Preliminary results* [Portable Document Format]. AMCTO. <https://www.amcto.com/getattachment/6276aebd-3545-4b92-9403-e26203dd1ab6/.aspx>
- Association of Municipalities of Ontario (AMO). (2022, September 26). *2022 municipal election – context*. AMO. Retrieved October 12, 2022, from <https://www.amo.on.ca/municipal-election-statistics>
- Bannister, F., & Connolly, R. (2012). Defining e-Governance. *e-Service Journal*, 8(2), 3–25. <https://doi.org/10.2979/eservicej.8.2.3>
- Bill 68, *Modernizing Ontario's Municipal Legislation Act*, 2017, 2nd session, 41st Parliament, Ontario, 2017. <https://www.ola.org/en/legislative-business/bills/parliament-41/session-2/bill-68>
- Bill 187, *Municipal Emergency Act*, 2020, 1st session, 42nd Parliament, Ontario, 2020. <https://www.ola.org/en/legislative-business/bills/parliament-42/session-1/bill-187>
- Bill 197, *COVID-19 Economic Recovery Act*, 2020, 1st session, 42nd Parliament, Ontario, 2020. <https://www.ola.org/en/legislative-business/bills/parliament-42/session-1/bill-197>
- Boin, A., Brock, K., Craft, J., Halligan, J., Hart, P., Roy, J., Tellier, G., & Turnbull, L. (2020). Beyond COVID-19: Five commentaries on expert knowledge, executive action, and accountability in governance and public administration. *Canadian Public Administration*, 63(3), 339-368. <https://doi.org/10.1111/capa.12386>

Boomer, C. (2021a). *2022 municipal & school board election – alternative voting methods* (Report No. COR-2021-26). City of Kitchener.

<https://lf.kitchener.ca/WebLinkExt/0/doc/1947306/Page1.aspx>

Boomer, C. (2021b). *2022 municipal & school board election – mail-in ballots as a supplementary voting option* (Report No. COR-2021-33). City of Kitchener.

<https://lf.kitchener.ca/WebLinkExt/0/doc/1952013/Page1.aspx>

Borrelli, M. (2020, October 13). Windsor city council meeting returns to virtual format with threat of second wave. *CTV News*. <https://windsor.ctvnews.ca/windsor-city-council-meeting-returns-to-virtual-format-with-threat-of-second-wave-1.5143093>

Bueckert, K. (2022a, October 19). Kitchener man concerned city didn't fully consider voters with disabilities in municipal election. *CBC News*.

<https://www.cbc.ca/news/canada/kitchener-waterloo/kitchener-voting-disabilities-concerns-1.6620262>

Bueckert, K. (2022b, October 26). Number of voters who cast Ontario municipal election ballots is down. Here's why that matters. *CBC News*.

<https://www.cbc.ca/news/canada/kitchener-waterloo/voter-turnout-waterloo-region-down-1.6628304>

Bunn, J. (2020a). *Amendment to Procedural By-law regarding electronic meeting participation* (Report No. COR-20-006). City of Kitchener.

<https://lf.kitchener.ca/WebLinkExt/DocView.aspx?dbid=0&id=1857585&page=1&cr=1>

- Bunn, J. (2020b). *Proposed amendments to City of Kitchener Municipal Code Chapter 25 (Procedure)* (Report No. COR-20-012). City of Kitchener.  
<https://lf.kitchener.ca/WebLinkExt/0/doc/1885304/Page1.aspx>
- Campbell, T. (2022, July 13). Funeral homes? Election officials scouring Windsor for polling station locations. *Windsor Star*. <https://windsorstar.com/news/local-news/funeral-homes-election-officials-scouring-windsor-for-polling-station-locations>
- Cardillo, A., Akinyokun, N., & Essex, A. (2019). Online voting in Ontario municipal elections: A conflict of legal principles and technology?. In R. Krimmer, M. Volkamer, V. Cortier, B. Beckert, R. Küsters, U. Serdült & D. Duenas-Cid (Eds.), *Electronic Voting, 4<sup>th</sup> International Joint Conference, E-Vote-ID 2019 Bregenz, Austria, October 1-4, 2019 Proceedings* (pp. 67-82). Springer. [https://doi.org/10.1007/978-3-030-30625-0\\_5](https://doi.org/10.1007/978-3-030-30625-0_5)
- CBC News. (2022a, September 26). Border vaccine rules, mandatory use of ArriveCan, mask mandates on planes and trains to end on Oct.1. *CBC News*.  
<https://www.cbc.ca/news/politics/arrivecan-border-covid-end-1.6595710>
- CBC News. (2022b, October 25). Voter turnout in Windsor is trending downward. *CBC News*.  
<https://www.cbc.ca/news/canada/windsor/low-voter-turnout-windsor-1.6628632>
- Chandler, J. (2020, August 13). Are online council meetings good for democracy?. *TVO Today*.  
<https://www.tvo.org/article/are-online-council-meetings-good-for-democracy>
- Choi, J., & Song, C. (2020). Factors explaining why some citizens engage in e-participation, while others do not. *Government Information Quarterly*, 37(4), 1-12.  
<https://doi.org/10.1016/j.giq.2020.101524>

Chughtai, W. (2022, November 3). Online voting is more accessible than ever. So what effect does it have on voter turnout?. *CBC News*.

<https://www.cbc.ca/news/canada/toronto/online-voting-turnout-effect-1.6637975>

City of Burlington. (2020a). 'Item 8.4 (f) Voting options for 2022 and ranked ballots (CL-06-20) (SD-17-20)'. In *Regular Meeting of Council Minutes September 28, 2020*. City of Burlington: Council Chambers Level 2, City Hall.

<https://events.burlington.ca/meetings/Detail/2020-09-28-1300-Regular-Meeting-of-Council-Virtual/5f5c8541-72e6-47f7-a088-ae1001bb3c3>

City of Burlington. (2020b, April 20). *Regular meeting of council – virtual* [Video]. City of Burlington.

[https://burlingtonpublishing.escribemeetings.com/Players/ISISStandAlonePlayer.aspx?ClientId=burlington&FileName=Council%20Encoder%20Regular%20Meeting%20of%20Council\\_2020-04-20-08-54.mp4](https://burlingtonpublishing.escribemeetings.com/Players/ISISStandAlonePlayer.aspx?ClientId=burlington&FileName=Council%20Encoder%20Regular%20Meeting%20of%20Council_2020-04-20-08-54.mp4)

City of Burlington. (2020c). 'Item 5.1 amendment to Procedure By-law remote participation and electronic meetings (CL-08-20)'. In *Special Meeting of Council Minutes March 24, 2020*. City of Burlington: Council Chambers Level 2, City Hall.

<https://events.burlington.ca/meetings/Detail/2020-03-23-1230-Special-Meeting-of-Council/b3bdf9f9-0336-4e4e-a108-ae1001289e4>

City of Burlington. (2020d, August 24). *Regular meeting of council – virtual* [Video]. City of Burlington.

<https://burlingtonpublishing.escribemeetings.com/Players/ISISStandAlonePlayer.aspx?Cli>

entId=burlington&FileName=Council%20Encoder%20Regular%20Meeting%20of%20Council\_2020-08-24-12-28.mp4

City of Burlington. (2022a). 'Item 12.3 (a) 2022 municipal election – administrative approvals (CL-13-22)'. In *Regular Meeting of Council Minutes April 19, 2022*. City of Burlington: Council Chambers - Members participating remotely.

<https://events.burlington.ca/meetings/Detail/2022-04-19-1300-Regular-Meeting-of-Council/b63607a2-d92c-4f79-a39e-aed8016ed23f>

City of Burlington. (2022b). *How to vote*. City of Burlington. Retrieved October 20, 2022, from <https://myvote.burlington.ca/en/for-voters/how-to-vote/>

City of Burlington. (2022c). *Frequently asked questions*. City of Burlington. Retrieved October 20, 2022, from <https://myvote.burlington.ca/en/frequently-asked-questions/>

City of Burlington. (2022d). 'Item 14.8 hybrid council meetings (CL-11-22)'. In *Regular Meeting of Council Minutes March 22, 2022*. City of Burlington: Council Chambers - Members participating remotely. <https://events.burlington.ca/meetings/Detail/2022-03-22-1300-Regular-Meeting-of-Council/87bff293-d7ef-4e57-9589-aed8016744be>

City of Burlington. (2022e, March 23). *Burlington City Council moving to hybrid council meetings*. City of Burlington. <https://www.burlington.ca/en/news/burlington-city-council-moving-to-hybrid-council-meetings.aspx>

City of Kitchener. (2020a). 'Item 3 COR-20-006 – amendment to Procedural By-law regarding electronic meeting participation'. In *Special Council Minutes August 10, 2020*. City of

Kitchener: Council Chamber (electronic meeting)

<https://lf.kitchener.ca/WebLinkExt/0/doc/1858915/Page1.aspx>

City of Kitchener. [cityofkitchener]. (2020b, October 5). *Oct 5 – Council* [Video]. YouTube.

<https://www.youtube.com/watch?v=ue1T3GBLBfE>

City of Kitchener. [cityofkitchener]. (2021a, November 8). *2021-11-08 – Finance and Corporate Services Committee* [Video]. YouTube.

<https://www.youtube.com/watch?v=PF7bEbMuCKM>

City of Kitchener. (2021b). ‘Item 3.4 COR-2021-26 – 2022 municipal & school board election – alternative voting methods’. In *Finance and Corporate Services Committee Minutes November 8, 2021*. City of Kitchener: Electronic Meeting.

<https://lf.kitchener.ca/WebLinkExt/0/doc/1956572/Page1.aspx>

City of Kitchener. (2021c). ‘Item 7.1.d COR-2021-26 – 2022 municipal & school board election - alternative voting methods and COR-2021-33 – 2022 municipal & school board election – mail-in ballots as a supplementary voting option’. In *Council Meeting Minutes November 22, 2021*. City of Kitchener: Electronic Meeting.

<https://lf.kitchener.ca/WebLinkExt/0/doc/1958476/Page1.aspx>

City of Kitchener. (2021d). ‘Item 14 by-laws – 3rd reading’. In *Council Meeting Minutes February 22, 2021*. City of Kitchener: Electronic Meeting

<https://lf.kitchener.ca/WebLinkExt/0/doc/1910942/Page1.aspx>

City of Kitchener. (2022a). *Voting in Kitchener*. City of Kitchener. Retrieved October 20, 2022, from <https://www.kitchener.ca/en/council-and-city-administration/voting-in-kitchener.aspx>

City of Kitchener. (2022b). *Voting by proxy*. City of Kitchener. Retrieved October 20, 2022, from <https://www.kitchener.ca/en/council-and-city-administration/voting-by-proxy.aspx>

City of Kitchener. [cityofkitchener]. (2022c, October 5). *2022 municipal election* [Video]. YouTube. <https://www.youtube.com/watch?v=D73kYSVHbQM>

City of Kitchener. [cityofkitchener]. (2022d, August 8). *2022-08-02 Special council meeting* [Video]. YouTube. <https://www.youtube.com/watch?v=wp4j-QKw8LE&t=17s>

City of Windsor. (2020a, March 17). *Ward 7 By-Election Postponed*. City of Windsor. <https://www.citywindsor.ca/Newsroom/Pages/Ward-7-By-Election-Postponed.aspx>

City of Windsor. (2020b). 'Item 11.1 Updates to Procedure By-law to allow for electronic meeting participation during a declared emergency-city wide'. In *City of Windsor Minutes 03/24/2020*. <https://citywindsor.ca/cityhall/City-Council-Meetings/Council%20Minutes/Documents/2020/March%2024,%202020%20Special%20Meeting%20of%20Council%20Minutes.pdf>

City of Windsor. (2020c, March 24). *Special council meeting* [Video]. City of Windsor. <https://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20200324/-1/4134>

City of Windsor. (2020d, April 27). *City council meeting* [Video]. City of Windsor.

<https://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20200427/-1/4121>

City of Windsor. (2020e). ‘Item 11.3 Format for future City Council meetings during the COVID-19 pandemic and response to CQ 18-2020 regarding allowing delegations to participate during future Council Meetings’. In *City of Windsor Minutes 07/27/2020*.

<https://citywindsor.ca/cityhall/City-Council-Meetings/Council%20Minutes/Documents/2020/July%2027,%202020%20-%20City%20Council%20-%20Minutes.pdf>

City of Windsor. (2022a). *Voter info*. City of Windsor Retrieved October 20, 2022, from

<https://citywindsor.ca/cityhall/Municipal-Election/voter-info/Pages/default.aspx>

City of Windsor. (2022b). *COVID-19 pandemic protocols for voters*. Retrieved October 20,

2022, from <https://citywindsor.ca/cityhall/Municipal-Election/voter-info/Pages/Pandemic-Protocols-for-Voters.aspx>

City of Windsor. (2022c). *Proxy voting*. City of Windsor. Retrieved October 20, 2022, from

<https://citywindsor.ca/cityhall/Municipal-Election/voter-info/Pages/Proxy-Voting.aspx>

City of Windsor. (2022d). *Municipal election*. City of Windsor. Retrieved October 20, 2022,

from <https://citywindsor.ca/cityhall/Municipal-Election/Pages/Municipal-Election.aspx>

City of Windsor. (2022e, July 11). *City Council Chambers open for meeting*. City of Windsor.

<https://citywindsor.ca/Newsroom/Pages/City-Council-Chambers-Open-for-Meeting.aspx>

- Clarke, A., Lindquist, E. A., & Roy, J. (2017). Understanding governance in the digital era: An agenda for public administration research in Canada. *Canadian Public Administration*, 60(4), 457-475. <https://doi.org/10.1111/capa.12246>
- Coelho, T.R., Cunha, M.A., & Pozzebon, M. (2022). eParticipation practices and mechanisms of influence: An investigation of public policymaking. *Government Information Quarterly*, 39(2), 1-15. <https://doi.org/10.1016/j.giq.2021.101667>
- Connolly, J.M., Bode, L., & Epstein, B. (2018). Explaining the varying levels of adoption of e-government services in American municipal government. *State & Local Government Review*, 50(3), 150-164. <https://doi.org/10.1177/0160323X18808561>
- Cordella, A., & Tempini, N. (2015). E-government and organizational change: Reappraising the role of ICT and bureaucracy in public service delivery. *Government Information Quarterly*, 32(3), 279-286. <http://dx.doi.org/10.1016/j.giq.2015.03.005>
- Critchley, V. (2020). *Format for future City Council meetings during the COVID-19 pandemic and response to CQ 18-2020 regarding allowing delegations to participate during future council meetings* (Report No. C 153/2020). City of Windsor.
- Cross, B. (2021, November 9). City looks to new 'hybrid' model as it returns to in-person council meetings. *Windsor Star*. <https://windsorstar.com/news/local-news/city-looks-to-new-hybrid-model-as-it-returns-to-in-person-council-meetings>
- Deutschmann, A. (2020, March 22). City of Kitchener allowing online participation in council meeting. *CityNews*. <https://kitchener.citynews.ca/coronavirus-covid-19-local-news/city-of-kitchener-allowing-online-participation-in-council-meeting-2188801>

Engage Kitchener. (2021, July 9). *Your vote, your way*. EngageWR.

[https://www.engagewr.ca/yourvote?tool=news\\_feed#tool\\_tab](https://www.engagewr.ca/yourvote?tool=news_feed#tool_tab)

Fortnum, T. (2022, October 3). Windsor advance polls offering drive-thru voting. *CTV News*.

<https://windsor.ctvnews.ca/windsor-advance-polls-offering-drive-thru-voting-1.6094224>

Fusco, A., & Saunderson, D. (2022). *In-person and hybrid council and committee meetings*

(Report No. COR-2022-154). City of Kitchener.

<https://lf.kitchener.ca/WebLinkExt/0/doc/1971551/Page1.aspx>

Goodman, N., & Spicer, Z. (2019). Administering elections in a digital age: Online voting in Ontario municipalities. *Canadian Public Administration*, 62(3), 369-392.

<https://doi.org/10.1111/capa.12342>

Gosse, R. (2012). *Alternative voting – internet voting* (Report No. FCS-12-191). City of

Kitchener. <https://lf.kitchener.ca/WebLinkExt/0/doc/1947307/Page1.aspx>

Ho, A. T. (2002). Reinventing local governments and the e-government initiative. *Public*

*Administration Review*, 62(4), 434-444. <https://doi.org/10.1111/0033-3352.00197>

Janowski, T. (2015). Digital government evolution: From transformation to contextualization.

*Government Information Quarterly*, 32(3), 221-236.

<https://doi.org/10.1016/j.giq.2015.07.001>

Kim, P.S., Halligan, J., Cho, N., Oh, C.H., & Eikenberry, A.M. (2005). Toward participatory and transparent governance: Report on the Sixth Global Forum on Reinventing Government:.

*Public Administration Review*, 65(6), 646-654. <https://doi.org/10.1111/j.1540->

[6210.2005.00494.x](https://doi.org/10.1111/j.1540-6210.2005.00494.x)

- Kim, S., & Lee, J. (2012). E-participation, transparency, and trust in local government. *Public Administration Review*, 72(6), 819-828. <https://doi.org/10.1111/j.1540-6210.2012.02593.x>
- Knight-Lepain, T. (2019). *Ward 7 vacancy on City Council – by-election vs. appointment* (Report No. C 191/2019). City of Windsor. <https://www.citywindsor.ca/cityhall/City-CouncilMeetings/Council%20Minutes/Documents/2019/November%2018,%202019%20City%20Council%20-%20Minutes.pdf>
- KPMG. (n.d.). *Going digital, faster in Canada*. KPMG. <https://home.kpmg/ca/en/home/insights/2021/05/going-digital-faster-in-canada.html>
- LaBerge, L., O’Toole, C., Schneider, J., & Smaje, K. (2020, October 5). *How COVID-19 has pushed companies over technology tipping point – and transformed business forever*. McKinsey & Company. <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever>
- Layne, K., & Lee, J. (2001). Developing fully functional e-government: A four stage model. *Government Information Quarterly*, 18(2), 122-136. [https://doi.org/10.1016/S0740-624X\(01\)00066-1](https://doi.org/10.1016/S0740-624X(01)00066-1)
- Le Blanc, D. (2020). *E-participation: a quick overview of recent qualitative trends* (Working Paper No. 163). United Nations Department of Economic and Social Affairs. [https://www.un.org/esa/desa/papers/2020/wp163\\_2020.pdf](https://www.un.org/esa/desa/papers/2020/wp163_2020.pdf)

Lindgren, I., & van Veenstra, A.F. (2018, May). Digital government transformation: a case illustrating public e-service development as part of public sector transformation. In Janssen, M., Chun, S.A., & Weerakkody, V. (Chairs), *19th International Conference on Digital Government Research* [Paper presentation], Delft, South Holland, Netherlands. <https://doi.org/10.1145/3209281.3209302>

Manton, D., Knight-Lepain, T., Bozzato, N., Rochette, M., & Power, R. (2021). *Running an election during the COVID-19 pandemic* [PowerPoint slides]. Association of Municipal Managers, Clerks and Treasurers of Ontario (AMCTO). <https://www.amcto.com/Education-Events/2022-Municipal-Elections-Training>

Ministry of Municipal Affairs and Housing. (MMAH). (2020a). *2018 Municipal Election – Municipal Data* [Data set]. Government of Ontario. [https://data.ontario.ca/dataset/a5871234-ed52-4c79-af33-b205aee59fd3/resource/ec61223c-0862-4d36-8020-59a588b7f797/download/2018\\_municipal\\_election\\_-\\_municipal\\_data\\_-\\_csv\\_for\\_release\\_-\\_2020-05-12.csv](https://data.ontario.ca/dataset/a5871234-ed52-4c79-af33-b205aee59fd3/resource/ec61223c-0862-4d36-8020-59a588b7f797/download/2018_municipal_election_-_municipal_data_-_csv_for_release_-_2020-05-12.csv)

Ministry of Municipal Affairs and Housing. (MMAH). (2020b). *Providing flexibility for municipalities to hold local meetings during emergencies*. AMCTO. [https://www.amcto.com/getattachment/5c24927d-bf2a-4763-9918-75cc6cfd00e/Information-sheet-Electronic-Meetings-During-an-Emergency-March-2020-English-\(002\).pdf.aspx?lang=en-CA](https://www.amcto.com/getattachment/5c24927d-bf2a-4763-9918-75cc6cfd00e/Information-sheet-Electronic-Meetings-During-an-Emergency-March-2020-English-(002).pdf.aspx?lang=en-CA)

Ministry of Municipal Affairs and Housing. (MMAH). (2020c). *Electronic participation in municipal meetings*. AMCTO. <https://www.amcto.com/getattachment/Resources->

[Publications/Resources/Electronic-Council-Meetings/Electronic-Meetings-Info-Sheet-July-2020-Eng-\(2\).pdf.aspx?lang=en-CA](#)

Mitchell, A. (2021, October 22). The future of work is hybrid – here’s an expert’s recommendations. *The Conversation*. <https://theconversation.com/the-future-of-work-is-hybrid-heres-an-experts-recommendations-167432>

*Municipal Elections Act*, S.O. 1996, c. 32, s. 42 (1996a) (e-Laws).

<https://www.ontario.ca/laws/statute/96m32?search=Municipal+Elections+Act#BK63>

*Municipal Elections Act*, S.O. 1996, c. 32, s. 53 (1996b) (e-Laws).

<https://www.ontario.ca/laws/statute/96m32?search=Municipal+Elections+Act#BK75>

Norris, D. F., & Reddick, C. G. (2013). Local e-government in the United States: Transformation or incremental change?. *Public Administration Review*, 73(1), 165-175.

<https://doi.org/10.1111/j.1540-6210.2012.02647.x>

Office of the City Clerk. (2020). *Voting options for 2022 and ranked ballots* (Report No. CL-06-20). City of Burlington.

<https://burlingtonpublishing.escribemeetings.com/filestream.ashx?DocumentId=44354>

Office of the City Clerk. (2021a). *Hybrid Council and standing committee meeting strategy* (Report No. CL-25-21). City of Burlington.

<https://burlingtonpublishing.escribemeetings.com/filestream.ashx?DocumentId=50617>

Office of the City Clerk. (2021b). *Hybrid Council and standing committee meeting strategy* (Report No. CL-39-21). City of Burlington.

<https://burlingtonpublishing.escribemeetings.com/filestream.ashx?DocumentId=52235>

Office of the City Clerk. (2022). *2022 municipal election – administrative approvals* (Report No. CL-13-22). City of Burlington.

<https://burlingtonpublishing.escribemeetings.com/filestream.ashx?DocumentId=57121>

Organisation for Economic Co-operation and Development. (OECD). (2014). *Recommendation of the Council on Digital Government Strategies*. OECD.

<https://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf>

Organisation for Economic Co-operation and Development. (OECD). (2020, November). *The COVID-19 crisis: A catalyst for government transformation?*. OECD. [https://read.oecd-ilibrary.org/view/?ref=137\\_137545-kybqw3s4l6&title=The-Covid-19-Crisis-A-catalyst-for-government-transformation](https://read.oecd-ilibrary.org/view/?ref=137_137545-kybqw3s4l6&title=The-Covid-19-Crisis-A-catalyst-for-government-transformation)

Porwol, L., Ojo, A., & Breslin, J.G. (2016). An ontology for next generation e-Participation initiatives. *Government Information Quarterly*, 33(3), 583-594.

<http://dx.doi.org/10.1016/j.giq.2016.01.007>

Raponi, T., & Del Greco, A. (2020). *Electronic council, committee and board meetings guide for Ontario municipalities* (2<sup>nd</sup> edition). AMCTO, MISA Ontario.

[https://www.amcto.com/getattachment/Resources-Publications/Resources/Electronic-Council-Meetings/Electronic-Meetings\\_Guide\\_secondeditionFINAL-\(1\).pdf.aspx?lang=en-CA](https://www.amcto.com/getattachment/Resources-Publications/Resources/Electronic-Council-Meetings/Electronic-Meetings_Guide_secondeditionFINAL-(1).pdf.aspx?lang=en-CA)

Record Editorial. (2021, August 13). Kitchener should embrace online voting in municipal elections. *The Record*.

<https://www.therecord.com/opinion/editorials/2021/08/13/kitchener-should-embrace-online-voting-in-municipal-elections.html>

Roy, J. (2006). *E-government in Canada: Transformation for the digital age*. University of Ottawa Press.

Roy, J. (2019). Service, openness and engagement as digitally-based enablers of public value? A critical examination of digital government in Canada. *International Journal of Public Administration in the Digital Age*, 6(3), 23-40.

<https://doi.org/10.4018/IJPADA.2019070102>

Roy, J. (2022). *COVID-19, digitization & hybrid workspaces: Implications and opportunities for public sector organizations*. Dalhousie University School of Public Administration.

[https://blogs.dal.ca/cege/files/2022/02/REPORT\\_Dr.Jeffrey-Roy\\_Covid-19\\_Digitalization-and-Hybrid-Workspaces\\_Jan2022.pdf](https://blogs.dal.ca/cege/files/2022/02/REPORT_Dr.Jeffrey-Roy_Covid-19_Digitalization-and-Hybrid-Workspaces_Jan2022.pdf)

Sadewo, B. (2022, October 31). Youth hopeful as voter turnout drops in Oakville and Burlington as well as Milton and Halton Hills. *Inside Halton*. <https://www.insidehalton.com/news-story/10750669-youth-hopeful-as-voter-turnout-drops-in-oakville-and-burlington-as-well-as-milton-and-halton-hills/>

Sæbø, Ø., Rose, J., & Flak, L.S. (2008). The shape of eParticipation: Characterizing an emerging research area. *Government Information Quarterly*, 25(3), 400-428.

<https://doi.org/10.1016/j.giq.2007.04.007>

Sancton, A. (2015). *Canadian local government: An urban perspective* (2nd ed.). Oxford University Press.

- Scott, J. (2021, March 26). Jackie Weaver: ‘end virtual council meetings? dreadful idea’. *BBC News*. <https://www.bbc.com/news/uk-politics-56537560>
- Shaw, E. (2018). Skipping ahead to the good part: The role of civic technology in achieving the promise of e-government. *JeDEM - EJournal of EDemocracy and Open Government*, 10(2), 74-96. <https://doi.org/10.29379/jedem.v10i1.455>
- Spicer, Z., Goodman, N., & Olmstead, N. (2021). The frontier of digital opportunity: Smart city implementation in small, rural and remote communities in Canada. *Urban Studies*, 58(3), 535-558. <https://doi.org/10.1177/0042098019863666>
- Statistics Canada. (2021). *Census profile, 2021 census of population* [Data set]. Statistics Canada. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/search-recherche/lst/results-resultats.cfm?Lang=E&GEOCODE=35>
- Tarling, C. (2019). *2018 election debrief* (Report No. COR-19-019). City of Kitchener. <https://lf.kitchener.ca/WebLinkExt/0/doc/1745933/Page1.aspx>
- Turner, J., & Baker, M. (2022, June 16). *9 future of work trends post COVID-19*. Gartner. <https://www.gartner.com/smarterwithgartner/9-future-of-work-trends-post-covid-19>
- United Nations. (UN). (2020). *E-government survey 2020: Digital government in the decade of action for sustainable development*. United Nations Department of Economic and Social Affairs. [https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2020-Survey/2020%20UN%20E-Government%20Survey%20\(Full%20Report\).pdf](https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2020-Survey/2020%20UN%20E-Government%20Survey%20(Full%20Report).pdf)
- Vlachodimos, S. (2021). *2022 schedule of council and standing committee meetings – city wide* (Report No. C 158/2021). City of Windsor.

Yun, T. (2022, June 17). Why the COVID alert app never took off in Canada. *CTV News*.

<https://www.ctvnews.ca/health/coronavirus/why-the-covid-alert-app-never-took-off-in-canada-1.5951502>

Zhang, F., & Feeney, M. K. (2020). Engaging through technology: The role of administrative culture and mandates. *Public Management Review*, 22(10), 1423-1442.

<https://doi.org/10.1080/14719037.2019.1630475>

## VITA AUCTORIS

NAME: Justin Grainger

PLACE OF BIRTH: Chatham, Ontario, Canada

YEAR OF BIRTH: 1998

EDUCATION: Chatham-Kent Secondary School, Chatham, ON, 2016

University of Windsor, B.A.[H], Windsor, ON, 2020