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ORIGINAL ARTICLE

Preparedness and crisis-driven policy change: COVID-19, digital readiness, and information technology professionals in Canadian local government

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Abstract

This article explores the pandemic-induced transition to electronic municipal council meetings in Ontario, Canada as an instance of crisis-driven policy change. Employing survey data of information technology (IT) professionals and a critical case study, this research probes the notion that crises, like pandemics, can not only create windows for policy change, but also draw attention to the many often overlooked operational elements of government, including the increasingly important policy role played by IT professionals.

Sommaire

Cet article étudie la transition provoquée par la pandémie vers les réunions électroniques des conseils municipaux en Ontario, au Canada, en tant qu'exemple de changement de stratégie consécutif à une crise. En utilisant des données d'enquête recueillies par des professionnels des technologies de l'information (TI) et une étude de cas critique, nous examinons le concept selon lequel les crises – comme les pandémies – non seulement créent des ouvertures pour un

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changement de politique, mais attirent également l'attention sur les nombreux éléments opérationnels du gouvernement souvent oubliés, y compris le rôle stratégique de plus en plus important joué par les professionnels de l'informatique.

INTRODUCTION

Governments of all sizes had to quickly move much of their operations onto digital platforms during the early stages of the COVID-19 pandemic, including meetings of elected representatives. Municipalities were no different. This transition was a big undertaking requiring the input and expertise of many different functional areas in local government, including senior executives, clerk's offices, legal services and, especially, information technology (IT) staff. The latter group, IT professionals, has traditionally been overlooked in public policy and administration research (see Hood & Margetts, 2010), but took centre stage during the COVID-19 pandemic.

This article examines the transition to electronic council meetings in Ontario, Canada with two main objectives in mind. First, to add to our understanding of policy windows by making some preliminary observations about crisis-induced policy change and existing organizational capacity and readiness. Second, to highlight the important policy role played by IT professionals in government. This role is increasingly being acknowledged in the emerging literature on digital transformation, but thick descriptions about the policy implications of the day-to-day work of IT professionals are still in short supply (see Mergel et al., 2019; Pittaway & Montazemi, 2020; Wilson & Mergel, 2022). Moreover, evidence indicates that, in practice, the importance of aligning culture and structure to facilitate IT dependent organizational changes is not always appreciated by politicians and senior public sector leaders (Pittaway & Montazemi, 2020; Wilson & Mergel, 2022).

The empirical referents for both lines of inquiry include a survey of municipal IT professionals in Ontario conducted during the summer of 2020 and a case study of Middlesex County, which is purportedly the first municipality in the province to hold an electronic meeting once a legislative pathway was cleared.[1] Ontario itself presents an interesting environment to report on this policy shift given there is evidence that municipalities had raised the idea of electronic meetings with the province prior to the pandemic (Morris, 2018). The provincial government had previously provided permission to engage in limited virtual participation in council meetings in 2018 but signalled it would not consider full participation. The pandemic forced a reconsideration of this policy.

As detailed below, municipalities that had the requisite level of digital readiness prior to the pandemic were reasonably well equipped to manage the transition to electronic council meetings. More research is needed, but preliminary observations reported in this study alert us to the possibility that the apparent abruptness of policy innovations brought on by emergencies or disasters can be at least partly attributed to the latent or unrealized capacity of early adopters. Additionally, as innovations increasingly come to rely on digital technologies, the call to consider IT professionals as important policy actors in their own right takes on increasing importance.

BACKGROUND AND CONTEXT

Municipalities in Canada receive their authority through provincial legislation. These various provincial statutes have a common objective in establishing and articulating the purpose of municipalities and defining the scope of their jurisdiction through both permissive and mandatory elements, including how and on what terms municipal councils can meet, which procedures must be followed, and how decisions must be made (Sancton, 2021). In Ontario, the general enabling legislation is the Municipal Act (S.O. 2001. c. 25). Municipal councils and committees in Ontario usually meet in person, in a municipal building. Except when a municipality is considering certain legislatively defined issues, such as legal advice, negotiations with third parties, and labour relations, meetings are open to the public, and public delegations are common.

As part of a broader municipal modernization effort, the Government of Ontario first permitted limited electronic participation in council and committee meetings beginning in 2018 through the Modernizing Ontario's Municipal Legislation Act (S.O. 2017, c. 10). This change meant that councillors could join meetings remotely, but only during public portions of meetings. Council members participating electronically were also not counted towards quorum. Therefore, while some electronic participation in meetings was possible, it could only be an option for a limited number of councillors—quorum would still need to be met by those physically in attendance—who could not take part in any of the closed-door portions of the meeting. While some municipalities, including Middlesex County, called for amendments to this legislation to allow for full virtual participation at council meetings, the province resisted and maintained the existing provisions (Morris, 2018). The COVID-19 pandemic, however, forced a reconsideration of this position.

The World Health Organization declared COVID-19 a pandemic on 11 March 2020. This declaration, along with a sharp increase in infections around the world, led governments to take immediate action to protect citizens, including instituting lockdowns to keep people from different households away from each other. While many activities slowed or halted during the early stages of the pandemic, governments needed to continue to function. Most government employees were able to work remotely from home, but politicians still needed to meet and collectively make decisions. Many argued this should and could be done virtually at the municipal level. Legislatively, however, this was not yet possible.

While the provisions in the Modernizing Ontario's Municipal Legislation Act (S.O. 2017, c. 10) allowed for limited electronic participation in council meetings, they would certainly not be sufficient to allow for all members of council to attend virtually and participate fully, including in-camera discussions. On 19 March 2020, the provincial legislature passed the Municipal Emergency Act, 2020 (S.O. 2020, c. 4), which allowed municipalities to update their procedural bylaws to permit electronic participation in municipal council, committee, and local board meetings to count towards quorum during a declared state of emergency. A legislative pathway had been created, but municipalities still needed to adopt individual technology solutions to facilitate electronic council meetings. In doing so, municipalities were forced to expose the state of their digital preparedness. This article seeks to explore whether levels of digital readiness affected the ability of municipalities to react and respond to the opportunity that the pandemic presented, while also providing insights into the policy advocacy and implementation work done by IT professionals in facilitating and managing the transition. The next section roots each research focus in its related literature.

PREPAREDNESS AND POLICY CHANGE

Many who have written about the policy impact of the COVID-19 pandemic have labelled it as a policy window (see Auener et al., 2020; Béland & Marier, 2020; Dupont et al., 2020; Minkler et al., 2020; Béland et al., 2021; Mintrom & True, 2022). This concept is most closely associated with the Multiple Streams Framework (MSF), one of the leading perspectives on the policy process. Policy windows are moments in time when an issue suddenly captures the attention of decision makers. Policy windows increase the likelihood that problem, policy, and political streams will be coupled, often through the initiative of a policy entrepreneur (Kingdon, 1995; Herweg et al., 2018). Viewing the COVID-19 pandemic as a policy window makes intuitive sense, as it fundamentally affected economic, social, and political systems globally (DeLeo et al., 2021). Under these conditions, potential policy solutions that seemed too risky or unworkable previously suddenly became viable and perhaps even necessary.

It is our contention that the pandemic opened both a policy window for electronic council meetings and put on full display the digital readiness of municipalities in Ontario. This policy window opened because in-person municipal council meetings became a danger to public health and safety. There was a certain level of policy latency present prior to the pandemic as some municipalities explored the idea and had raised it with the provincial government. But, if electronic meetings were a potential solution, no one person or group was making the effort to change the problem framing around electronic meetings, build a network of like-minded partners, head off potential sources of opposition, and shop the idea to different jurisdictions (see Petridou & Mintrom, 2021: 945–946). In other words, electronic meetings were lacking a policy entrepreneur prior to the pandemic—a key driver of policy change, according to the MSF (Herweg et al., 2018; Mintrom, 2019; Eckersley & Lakoma, 2021), as well as other theories of the policy process (Shpaizman et al., 2016; Arnold, 2021; Petridou & Mintrom, 2021). Intergovernmental dynamics complicated matters as well. Even if all three streams aligned in a specific municipality, coupling first had to take place provincially. Instead, electronic meetings suddenly became the consensus solution at both levels of government when the pandemic struck. The initial enabling provincial change appears to have happened without a policy entrepreneur, but once it occurred local actors had to quickly draft and implement local policy solutions.

Given the randomness and pace of this policy change, we hypothesize that municipalities that had a higher level of digital readiness prior to the pandemic would be better equipped to make the transition to electronic meetings than those that did not. A window of opportunity was provided by the pandemic which some municipalities were able to step through sooner than others. From this, our first research question emerges: Was the transition to electronic meetings easier for municipalities with a higher level of digital readiness?

DIGITAL READINESS AND IT PROFESSIONALS

Although most government modernization initiatives rely heavily on digital technology (Fountain, 2001; Bekkers & Homburg, 2005), the role of IT departments and professionals in imagining and adopting the necessary solutions has traditionally been overlooked by practitioners and scholars alike (Dunleavy et al., 2006; Lips & Schuppan, 2009; Hood & Margetts, 2010; Mergel et al., 2019). One possible explanation for this is that IT professionals

have not historically been considered part of the "policy level" of public organizations (Hood & Margetts, 2010; 115). However, this is changing as public administration researchers have increasingly turned their attention to the issues and opportunities associated with digital transformation in the public sector (Janowski, 2015; Mergel et al., 2019; Gabryelczyk, 2020; Wilson & Mergel, 2022), and governments attempt to take a whole-of-government approach to the adoption of digital strategies by establishing leadership positions such as chief information officer or chief digital officer (Brown & Toze, 2017) and/or through the creation of centralized digital government units (Clarke, 2020). Since this shift is recent, more research is needed with respect to the level of effort, leadership, and ingenuity needed for successful digital innovation in the public sector (Mergel et al., 2019; Pittaway & Montazemi, 2020; Wilson & Mergel, 2022).

When IT professionals do figure into research on public sector digitization, they have been considered "internal enablers" (Manoharan & Ingrams, 2018) or "digital champions" (Wilson & Mergel, 2022), in that the adoption of new technologies requires a level of technical and financial capacity as well as an organizational culture that supports innovation and measured risk taking (Norris & Reddick, 2012; Janowski, 2015; Mensah & Adams, 2020; Wilson & Mergel, 2022). Research based on US municipalities, for example, has shown a strong connection between municipal capacity and IT development and procurement (see Ahn, 2011; Jun & Weare, 2011), with population being a significant predictor of adoption of information and communication technologies among municipal governments (Guillamón et al., 2016).

For the purposes of this article, we consider digital readiness in terms of the capacity to adopt and implement digital technology. The literature on digital transformation identifies barriers to digital government as well as strategies to overcome them, which are often thought of as being either structural or cultural. Structural factors include elements such as financial and human resources, legal frameworks, technological infrastructure and capacity and skills in terms of both technical ability and project management, while cultural factors include political and management support and leadership, institutional habit, level of engagement with service users, and risk tolerance (see Wilson & Mergel, 2022). Janowski's (2015) stages model incorporates these elements in a sequence of four phases: digitization (technology in government), transformation (electronic government), engagement (electronic governance) and contextualization (policy-driven electronic governance), with each successive stage representing a higher level of digital maturity. Whereas digitization mainly involves moving physical or analog documents and processes to digital, the latter stages involve fundamental transformations to internal processes and external relationships through a combination of digital technologies and organizational change.

The empirical referents for this article allow us to explore these indicators to varying degrees and make some preliminary observations about how incremental investments in digital technologies, often advocated for and shepherded through by IT professionals, can pay dividends when crisis strikes, and significant change suddenly becomes possible (and necessary). These conditions were certainly present during the early stages of the COVID-19 pandemic, where the transition to electronic council meetings involved a high level of uncertainty, the technology was untested and the legislative path was far from clear. Our second line of inquiry involves two related questions: What role did IT professionals play in promoting and facilitating digital readiness prior to the pandemic? And what role did IT professionals play in facilitating the transition to electronic meetings?

RESEARCH METHODS AND DESIGN

This article relies on two empirical components. The first is the results of a survey distributed to municipal IT professionals by the Ontario chapter of the Municipal Information Systems Association (MISA Ontario).[2] MISA is a professional association for information technology and communications professionals from across Canada who are primarily working in the local government field. This survey asked MISA Ontario members for their observations of the transition to electronic meetings in their municipality.

The MISA Ontario survey was sent to 1,056 Ontario members between 12 August and 3 September 2020 and received 185 unique responses.[3] As we sought a single view of organizational responses to COVID-19 from each municipality, we selected only one respondent where more than one person answered the survey from the same municipality. In these cases, we selected the response of the highest-ranking IT professional as we assumed that this person would be best positioned to provide the perspective of the IT department.[4] If the respondents held the same position, we selected the one with the longest tenure, which was information captured in the survey. This produced a sample size of 70. Of these 70 respondents, the majority (51%) came from a lower-tier government. The remainder were from upper-tier and single-tier municipalities. Most respondents (76%) had over 10 years of experience in the IT field. Moreover, 66% of respondents also indicated they have been with their municipality for more than 10 years. As such, and despite the relatively low response rate to the survey, we are confident that we have a group that is well positioned to respond accurately on the state of IT organizational planning before, during, and after the pandemic across municipalities of different sizes and types.

The second empirical component to the study is an in-depth case study of this transition in Middlesex County, an upper-tier municipal government in Ontario, and one of, if not, the first municipalities in the province to hold an electronic council meeting after necessary legislative changes were made. Middlesex County was also heavily involved in lobbying the provincial government to make the legislative changes to allow for local electronic meetings, which makes this organization a critical case. Information from this case study was derived from document analysis and interviews with staff and politicians from Middlesex County.[5] One of the authors of this article was also the County's IT director during the period covered by the study. Five key officials from Middlesex County were interviewed in July and August of 2020, a period still firmly in the COVID-19 pandemic, but well after the implementation of electronic meetings, thereby providing enough passage of time for them to assess and reflect on the impact of this legislative and policy change.

In using both empirical referents, we can make preliminary observations about the level of digital readiness across Ontario municipalities prior to the pandemic and the role of IT professionals in facilitating the transition to electronic council meetings, while also accounting for individual-level changes in one of the first municipalities in the province to adopt virtual council meetings.

THE MISA ONTARIO SURVEY

In general, municipalities in Ontario were well prepared to make the transition to electronic council meetings, once the policy window opened, though there was some variation. The vast majority of respondents indicated that their organizations were very prepared (19%), prepared

(30%) or somewhat prepared (40%) to pivot to electronic meetings. Only 7% of respondents indicated their municipalities were not prepared to introduce electronic council meetings. This finding indicates a reasonably high level of digital readiness among municipalities in Ontario, as the requisites of electronic meetings in terms of technology and levels of digital literacy had to already be in place for the transition to take place. Notwithstanding the efforts of IT professionals in getting their municipalities to a point where the transition to electronic meetings was possible, affordable and reliable access to video conferencing platforms such as Zoom or Microsoft Teams should certainly not be discounted either (Puddister & Small, 2020; Serhan, 2020). If these options for video conferencing were not readily available, it is safe to say the response to this question would have looked very different.

Despite relatively high levels of overall preparedness, we probed variations on this variable deeper by dividing respondents based upon municipal type (lower-, upper- and single-tier), population size and whether there was interest in exploring electronic council meetings prior to the pandemic. In these data, we see that 11% of lower-tier municipalities reported being unprepared, which is higher than the overall average of 7%, indicating that organizational size can limit the efficacy of local IT activity, as previous literature has also shown (Ahn, 2011). We also note that this response diminishes as the size of the municipality increases—no municipality with a population over 300,000 reported being unprepared—a result expected given past research has shown a clear connection between the increased capacity of municipal governments and IT procurement and development (Brudney & Selden, 1995; Moon, 2002). Municipal capacity is tied to an organization's ability to procure technical knowledge, which smaller governments often lack the resources to accomplish (Mossberger et al., 2008; Jun & Weare, 2011), again potentially explaining the relative unpreparedness of smaller governments to pivot to online council meetings in the face of the pandemic. Smaller municipalities have been shown to potentially overcome this knowledge gap by contracting out IT services and support (Feeney & Brown, 2017). Finally, fewer municipalities that were interested in electronic council meetings prior to the pandemic reported being not prepared (3%) compared to municipalities with no prior interest (10%). Presumably this is because this interest culminated in some examination of the feasibility of implementing electronic council meetings if a legislative path were to be forged by the provincial government.

Unpacking the interest in electronic meetings further, 44% of respondents said that there was some level of interest in their municipality prior to the pandemic. Of those respondents that did report some prior interest in electronic meetings, council, the clerk's office, and IT were identified as the main proponents of the issue, in that order. This finding provides some evidence regarding the role played by IT professionals in the transition to electronic meetings, as IT outpaced the CAOs office, the planning department, and the public in terms of the key actors pursuing this issue. Nonetheless, nothing in the survey results indicates that any one person or group was pushing for electronic meetings with enough skill and persistence to be considered a policy entrepreneur.

What explains the lack of interest and enthusiasm among the majority of respondents? The most common answer was the legislative limitations in place provincially. As mentioned above, prior to the passage of the Municipal Emergency Act, 2020 (S.O. 2020, c. 4), the Municipal Act, 2001 (S.O. 2001, c.25) did not allow for fully virtual meetings, and there was little indication from the provincial government that this situation was going to change (Morris, 2018). The pandemic changed the urgency of the issue, forcing provincial decision makers to relent and allow for full virtual participation in council meetings. The second major factor identified was a lack of political will, again likely due to the province's entrenched position. Municipal

politicians were not willing to engage in a protracted process to introduce electronic meetings if it meant that the province was unlikely to create a legislative pathway to formally allow their use.

In short, most of the municipalities in Ontario seemed to handle the transition to electronic council meetings well. Larger municipalities were better prepared for the transition, which speaks to size and capacity. Despite some municipalities expressing prior interest in electronic meetings, no one actor or group was acting as a traditional policy entrepreneur in support of the electronic council meetings before the pandemic struck. The legislative roadblock and lack of political will kept the issue dormant. Thus, the analogy of policy entrepreneurs as "surfers waiting for the next big wave, not Poseidon-like masters of the seas" (see Cairney & Jones, 2016; 41) seems to apply in this case, as, given the hurdles, most IT professionals were more focused on other aspects of digital readiness. Once the pandemic hit and the policy window opened however, IT professionals had to quickly get to work implementing electronic meetings. Those municipalities with greater digital readiness to begin with appear to have had an easier transition. These observations are based only on a small sample and descriptive statistics, though, limiting our ability to draw overly confident conclusions. However, we probe these preliminary findings further in our case study of Middlesex County.

THE MIDDLESEX COUNTY CASE STUDY

Middlesex County is an upper-tier municipality in southwestern Ontario, geographically situated just outside of London, Ontario and approximately 200 kilometres west of Canada's largest city: Toronto. The County has a population of approximately 70,000 spread throughout eight lower-tier municipalities, to which the County provides IT services in various capacities. The County's IT department consists of 12 full-time employees (FTEs) and is led by a director who is a member of the County's senior leadership team. The rest of the department consists of one manager of technical services, two administrative coordinators, three business services advisors, one network technologist, one system administrator and three service desk technicians. Internally, the department is divided into two divisions: (1) technical services, which is focused on day-to-day operations including systems administration, network and communications support, and cybersecurity, and (2) business services, which is focused on modernization initiatives, business analysis and automation.

Of specific interest, Middlesex County claims to have been the first municipality in Ontario to host electronic council meetings at the outset of the pandemic. As a result, Middlesex County represents a critical case for the transition to electronic meetings. The case study approach also allows us to make more detailed observations about our two main lines of inquiry as compared to the survey results. Our findings indicate that a focus on continuous digital investment and preparation, led by the IT department, prior to the pandemic, was instrumental in allowing Middlesex County to quickly take advantage of the electronic council meeting policy window.

Remote work and social distancing protocols were first implemented in Middlesex County on March 16, 2020—five days after the World Health Organization declared COVID-19 a pandemic. Land ambulance and nursing home staff were excluded, and a skeleton crew of seven continued to work from the administrative headquarters, but the vast majority of the County's workforce was required to work remotely. The following day, March 17, 2020, the province of Ontario declared an emergency under the Emergency Management and Civil Protection Act (R.S.O. 1990, c. E.9) and issued an order prohibiting organized public events of

over 50 people. Middlesex County quickly followed suit and declared an emergency later that same day.

With staff working remotely and in-person council meetings prohibited, the County began lobbying the Ontario Ministry of Municipal Affairs to allow electronic participation to count towards quorum for council meetings and to provide clarity around public participation in electronic Planning Act (R.S.O. 1990, c. P.13) and Drainage Act (R.S.O. 1990, c. D.17) meetings. On March 19, 2020, the province responded with the passage of the Municipal Emergency Act, 2020 (S.O. 2020, c. 4), which allowed municipalities to update their procedural bylaws to permit electronic participation in municipal council, committee, and local board meetings to count towards quorum during a declared state of emergency.

In response to provincial legislative changes, Middlesex County passed a bylaw and resolution to amend its procedural bylaw to allow for electronic participation in council, committee, and local board meetings during a declared emergency at a special meeting of council on March 24, 2020. The Ontario legislature later passed the COVID-19 Economic Recovery Act, 2020 (S.O. 2020, c. 18) on July 21, 2020, giving municipalities the option to allow electronic participation in meetings and proxy voting outside of a declared emergency. Middlesex County promptly passed a bylaw amending its procedural bylaw to permanently allow for electronic participation in council meetings on July 28, 2020.

The speed at which the County was able to respond to provincial legislative changes and enact electronic council meetings can be attributed to the organization's longstanding preoccupation with IT modernization. This preoccupation can be attributed to three factors: geography, climate, and leadership. Middlesex County spans 3,317 square kilometres. This expansive territory is dotted with several built-up urban areas, but much of the community is rural. The geographic location of the separated City of London further complicates matters. The County's second and third largest lower-tier municipalities, by population, surround the city on three sides, and the County's most populous municipality is to the west, such that London creates a geographic gulf between municipalities. The County administrative building is also located in downtown London, which poses challenges for those travelling from certain parts of the County.[6] For instance, the quickest routes from the administrative offices in both Southwest Middlesex and North Middlesex to the County building are just shy of 50 kilometres. Being in southwestern Ontario, the County also experiences inclement weather events throughout the year. Having staff and councillors on the road during these events prolongs travel times and creates liability issues for the County. The County is also examining ways to reduce its carbon footprint and increase the sustainability of municipal operations.

Increasing digital literacy and creating opportunities for remote work have long been viewed by many within the organization as a solution to these perennial challenges. The County also provides IT services to most of its lower-tier municipalities, so the benefits of any improvements are widely dispersed. Council was openly supportive of staff efforts to modernize IT infrastructure and introduce new technology to the County's operations, mainly because the CAO and IT Director were so dogged in articulating the value of IT investments. Council members largely did not have the technical understanding required to direct these efforts and, therefore, trusted staff to make the appropriate interventions on their behalf, as long as their efforts made the County more sophisticated and efficient. Senior management and the IT department kept council updated on these efforts and framed the investments and continued success of modernization efforts around benefits for end users, such as convenience and reducing wait times for government services.

The IT department and CAO's office gradually took steps to embed a digital culture where possible throughout the organization. Incremental steps were taken to digitize and transform parts of the organization, including the development and implementation of a shared services model for IT, the creation of an online agenda management system for council, paramedic services digitization, the development of an electronic records management system with a focus on automated workflow and several other digital infrastructure initiatives. The provision of iPads for councillors and laptops for staff was an important component of this process. Equipping councillors with iPads increased their digital literacy and allowed staff to incorporate electronic documents during council meetings. Purchasing laptops for staff, as legacy hardware came up for renewal, allowed for remote work if the opportunity presented itself. Indeed, when COVID-19 struck, the IT department intensified its desktop replacement efforts, immediately purchasing the twenty remaining needed laptops.

The idea of electronic council and committee meetings, though supported by the CAO and IT Director, was, for the most part, abandoned as these more tractable projects were pursued. There were informal discussions, but progress stalled. Ultimately, staff were reluctant to fully commit to exploring the logistics of expanded electronic participation in council meetings given legislative restrictions. Instead, they focused on improving the digital literacy of council members and staff and investing in technology as a long-term digital strategy.

With staff able to work from home once COVID-19 struck, the next task was to find ways for council, and eventually other committees, to meet virtually. The IT department began exploring digital platforms to conduct meetings. Three main platforms were evaluated: CISCO Webex, Zoom Meetings and Microsoft Teams. In the end, Zoom was selected as the chosen technology solution. Staff were acutely aware that they were serving two audiences with their efforts: the public and members of council. Councillors needed to feel comfortable with the technology for the electronic meetings to have success. Finding a solution that would allow councillors to continue to use their iPads was paramount, meaning that Microsoft Teams was not an option as it was not compatible with iPads. The IT team believed that Webex failed in reliability and scale. During initial testing, Webex was unable to support small department-level meetings without disruption or disconnection. Fear, therefore, grew that it may be unreliable in an electronic council meeting where there would be possibly dozens of more connections.

With a platform in place, the province's declaration of a state of emergency on 17 March 2020 cleared the way for a range of legislative amendments to various provincial acts, one of which allowed for electronic council meetings. IT staff and council then moved quickly, hosting a test run of a meeting of council later that same day. This test ensured the technology worked well and supported the necessary functions of a council meeting. The provincial legislation was formally passed on 19 March 2020, and Middlesex County's first full council meeting occurred a few days later on 24 March 2020.

For the most part, the largest challenges encountered when hosting electronic council meetings involved connection issues. As mentioned, large parts of Middlesex County are rural, and broadband access is inconsistent in certain areas. Some councillors simply did not have strong enough internet access to sustain a connection throughout an entire council meeting. In response, some councillors needed to contact their internet service provider to upgrade their service. Others logged on to meetings from their local town halls or at libraries.

When the pandemic struck, Middlesex County was ready to pivot to electronic council meetings because of a long-standing commitment to digitization. This work occurred at scale, meaning that it was slow and often unseen but steady. The investment was incremental but aligned with the County's available resources. This work could very easily have been

overlooked if normal municipal operations were not critically disrupted by the pandemic, but COVID-19 and the immediate need to pivot to electronic council meetings demonstrated how the County's incremental investment in technology had set the organization up for success. In this sense, the pandemic highlighted an often-overlooked aspect of digitization in local government. While the technology solution was obvious—Zoom, Teams and WebEx are all commercially viable—the process to create a digital culture, increase familiarity among council and consciously acquire technology dramatically increased the speed in which Middlesex County was able to respond.

DISCUSSION AND CONCLUSION

This article explored the establishment of electronic municipal council meetings in Ontario in the early days of the COVID-19 pandemic. Through the survey and case study results presented, several insights emerge about policymaking in a crisis and the place of IT professionals in the policy process.

Our first line of inquiry was about digital readiness and the COVID-19 transition to electronic council meetings. The results indicate that the unpredictability and pace of policy change during a major crisis, like the COVID-19 pandemic, may be such that a policy entrepreneur is not needed to couple problem, policy, and political streams. There was some interest in electronic council meetings among municipal administrators and politicians prior to the pandemic and provincial legislation did allow for the possibility of limited electronic participation by individual council members, but no one person or group was pursuing the idea of full electronic council meetings with enough persistence or skill to be classified as a policy entrepreneur. The survey results indicate that the lack of a legislative path and apparent provincial intransigence on the issue were the main deterrents against more purposeful action.

The pandemic created a policy window for electronic council meetings, which, almost simultaneously, became the consensus policy solution. Municipalities, like Middlesex County, immediately began pressing the province to make the necessary legislative changes, but there were no other policy options being considered. Once public health restrictions limited the size of public gatherings, electronic meetings seemed like the only viable solution. The advocacy at that point centred on ensuring the issue remained top of mind for provincial officials. Local decisions and implementation happened after the legislative path to electronic meetings was cleared, and this work proceeded with the same sense of inevitability and urgency. A lot of entrepreneurial actions were taken during this stage in terms of amending procedural bylaws, choosing the right technology, and making sure councillors and administrators were comfortable operating virtually. These tasks were made easier for municipalities, like Middlesex County, that had the requisite digital capacity.

This leads into our second line of inquiry regarding the role played by IT professionals in promoting digital readiness prior to the pandemic and facilitating the transition to electronic meetings. Most municipalities in our sample were reasonably well prepared to respond to the need to transition to electronic council meetings. The accessibility and availability of video conferencing platforms necessary to support electronic council meetings was certainly a factor but so too were incremental investments in digital capacity. Municipalities in Ontario obviously had nothing to do with the former, but the more work they had done on the latter, for the most part led by IT professionals, allowed for a smoother transition. While governments and researchers alike are prone to emphasize large-scale, transformative projects or the creation of

new positions or offices in the digital government field, an important component of digital readiness is continuous process improvement. The pandemic created an opportunity for many organizations to realize the importance of these incremental, but necessary improvements. In this sense, the preparedness of municipal governments was on full display. Those municipalities with intentional digital modernization efforts that were designed to be cross-functional were better prepared to implement electronic council meetings when the pandemic struck. The case study demonstrates this concept as well. Our observations indicate that factors like capacity and culture are just as important for incremental improvements as they are for more punctuated innovations that receive the bulk of attention from researchers and practitioners alike.

Although none among them were devoting enough time, energy, or resources towards electronic council meetings prior to the pandemic, the survey results and case study offer evidence in support of an increasingly important policy role played by IT professionals. This group of public sector workers has often been envisioned in more traditional internal or horizontal service roles and left out of important policy discussions (Hood & Margetts, 2010; Pollitt, 2011). However, our research indicates that many do engage in entrepreneurial policy activities in support of the type of system-level improvements necessary for digital modernization. Choices about digital investments fundamentally affect organizations, and the main proponents and facilitators of those choices ought to be considered policy actors. Much of this work remains slow, arduous, and largely unseen but is becoming increasingly crucial for ensuring that governments keep pace with changes in digital technology.

Future emergencies will occur, and governments will need to respond on a number of fronts to ensure that public safety, public health, and even continuity of government are maintained. These emergencies may not equate to a global pandemic, but governments of all sizes need to be flexible and agile and ready to respond in a variety of contexts. Building a digital culture and making the necessary investments in technology allow municipalities to react quickly to exogenous changes in their operating environment. Additionally, investments in digital readiness allow municipalities to better utilize their human and capital assets. Remote work has been the norm in most government offices since the outset of the pandemic, giving many municipalities pause to consider the benefits of a more remote and distributed workforce. Simply put, continuous digital improvements and investments in both technology and knowledge give governments options for the future.

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ENDNOTES

[1] This was a claim made by several interviewees from the Middlesex County but could not be independently verified by the researchers. See the Research Design and Methods section for more information about the interviews conducted for this study.

[2] MISA has five chapters—BC, Prairies, Ontario, Quebec, and Atlantic—along with its national chapter.

[3] The authors received aggregated and anonymized survey responses from MISA such that each municipality was identified by a unique number rather than by name.

[4] Where the two respondents seemed of equal positioning within the organization, we selected randomly. If, after this selection process, we were unable to discern who was the most senior and best placed to respond, one was selected randomly.

[5] Interviews conducted for this project were done so under the guidelines of the Institute of Public Administration of Canada (IPAC), where one author was employed at the time. These conform to tri-council guidelines on research ethics.

[6] London is the county seat for Middlesex County, meaning that the County buildings and council chambers are within the City's boundaries (see Spicer, 2016).

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APPENDIX 1: INTERVIEW LISTING

Participant	Date
Government Official 1	July 29, 2020
Government Official 2	July 31, 2020
Government Official 3	July 31, 2020
Government Official 4	August 14, 2020
Government Official 5	August 18, 2020