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## DIGITAL PARLIAMENT: CANADA IN CONTEXT

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## ABOUT THIS PUBLICATION

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*Digital Parliament: Canada in Context*  
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## EXECUTIVE SUMMARY

The COVID-19 pandemic forced many legislatures around the world to adopt or expand their use of digital technologies in order to continue exercising their core functions of legislating, studying issues of public policy, scrutinizing governments and representing constituents. In the face of physical distancing requirements and lockdowns, the Parliament of Canada introduced information and communication technology (ICT) – such as Zoom and, in the House of Commons, a new e-voting app – to expand its capacity to hold remote and hybrid chamber and committee meetings. Senators and members of Parliament had to adapt quickly to participating in Parliament remotely and to engaging with each other, and with citizens and stakeholders, in an increasingly digital environment.

This HillStudy examines the experiences of Canadian senators, members of Parliament, and parliamentary staff with digital parliament during the pandemic. It places this experience in wider context of that of parliamentarians and parliamentary staff in other countries and jurisdictions – especially those that adapted ICT to fit similar Westminster traditions and procedures in the United Kingdom, Australia and New Zealand, among others. It also highlights recent research by academics, the Samara Centre and the Inter-Parliamentary Union on the possible effects of digital parliaments on core parliamentary functions.

# DIGITAL PARLIAMENT: CANADA IN CONTEXT

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## 1 INTRODUCTION

In 2020, governments around the world introduced physical distancing and lockdown measures to mitigate the spread of COVID-19. The pandemic forced many legislatures to adopt, or expand their use of, information and communication technology (ICT) in order to continue to exercise their traditional functions – to legislate and deliberate, to scrutinize governments and to represent constituents. In Canada, Parliament introduced ICT (such as the videoconferencing software Zoom and a new e-voting app for the House of Commons) to expand its capacity to hold remote and hybrid chamber and committee meetings. Canadian senators and members of Parliament (MPs) have had to adapt quickly to an increasingly digital environment. Parliamentarians and citizens have also learned to communicate primarily through videoconferences, email and social media.

This HillStudy examines the experiences of Canadian senators, MPs and parliamentary staff with digital parliament<sup>1</sup> during the pandemic, as well as the experiences of politicians and staff in other Westminster-style parliaments and in other legislatures around the world. It outlines the benefits and challenges of introducing and expanding the use of these technologies. It also articulates possible principles by which to judge what adaptations – if any – to keep or expand when the COVID-19 pandemic (the pandemic) ends.

## 2 PARLIAMENTARY FUNCTIONS IN THE DIGITAL WORLD

What are parliaments for? And how can we understand ICT in the context of the traditional principles by which a parliament operates?<sup>2</sup> Scholars of Westminster-style parliaments – such as those of Canada, the United Kingdom, Australia and New Zealand – generally agree on a parliament’s three core functions:<sup>3</sup>

- *Legislation and deliberation* – The most basic task of parliaments is to debate, amend and vote on legislation that is initiated by cabinet or by private members. This task has been especially relevant to governments facing a pandemic and lockdowns. For instance, some parliaments have introduced or amended legislation to support students, employers and workers, and to authorize greater borrowing and spending powers.<sup>4</sup> Westminster parliaments also study and debate public policy issues that are important but not currently slated for legislation.<sup>5</sup>
- *Scrutiny* – Closely related to legislation and deliberation is the duty of a parliament to examine government policy and spending, and to hold the government to account. This scrutiny can take place through – among other means – parliamentary debate, questions to government ministers and committee studies.

- *Representation* – Parliamentarians also represent citizens geographically by constituency or region and by other demographic traits, such as gender and culture. Experts generally distinguish three central ways in which parliamentarians may be representatives:<sup>6</sup>
  - As elected officials, who represent the result of the vote of people in a constituency.
  - As agents for the views and interests of people in a constituency or region. This connection between citizen and representative is sometimes referred to as “linkage” because agents consult with citizens to discern their views.<sup>7</sup> It is also closely related to ideals of transparency and accountability: citizens must accurately perceive how they are being represented in order to engage the government and to hold their “agents” to account.<sup>8</sup>
  - As individuals who – based on their traits, background and experiences – represent a specific cohort of the population.

During the pandemic, parliaments all around the world have used ICT as a tool to continue to exercise these functions. At the same time, researchers, parliamentarians and parliamentary staff who study the use of ICT in parliaments often highlight that this technology alters relationships between people and between people and data. As the Inter-Parliamentary Union (IPU) stated in its 2018 report on ICT in parliaments around the world, digital parliament (or “e-Parliament”) “transforms both processes and relationships, both inside parliament and with outside actors.”<sup>9</sup> These new processes and relationships may increase, decrease or alter how well a parliament legislates and deliberates, holds government to account and represents its citizens.

### 3 TRENDS IN DIGITAL PARLIAMENT BEFORE AND DURING THE PANDEMIC

#### 3.1 GLOBAL TRENDS

Even before the pandemic, many parliamentarians and parliaments were increasingly incorporating ICT into daily parliamentary life. Among the global trends that the IPU highlighted in the *World e-Parliament Report 2018*– its last pre-pandemic survey of parliamentarians – the organization noted that digital technologies were now “firmly embedded with clearly identified governance and technology practices in most parliaments.” It noted that digital broadcasting and video streaming had overtaken traditional broadcasting to provide access to plenary and committee sessions. It also pointed out that, among parliamentarians, the use of instant messaging had increased significantly.<sup>10</sup>

With the advent of the pandemic, parliaments around the world were forced to further expand and adapt their use of ICT to preserve their parliamentary functions. Commentators have noted that initial lockdowns, social distancing and parliamentary closures often threatened legislating and scrutiny functions – especially for executive branches that assumed sweeping emergency powers. The pandemic also threatened representation since parliaments that remained open could often admit only small numbers of representatives.<sup>11</sup>

Take-up of ICT has been significant. The IPU's *World e-Parliament Report 2020* noted that, by the end of 2020, one-third of all legislatures reported having held a virtual or hybrid plenary session, and 65% reported having held virtual or hybrid committee meetings.<sup>12</sup> Among other observations, the report highlighted that, worldwide, the use of instant messaging had grown from 27% of legislatures reporting its use by all or some of its members in 2018 to 39% in late 2020, and that communication with citizens by email newsletters and social media had increased by similar margins.<sup>13</sup> The report noted that ICT use is especially high among upper-middle income countries and likely high among high-income countries, based on past trends.<sup>14</sup>

### 3.2 DIGITAL PARLIAMENT IN CANADA

The Parliament of Canada and Canadian parliamentarians have largely followed these trends of increasing digital integration. Prior to the pandemic, Parliament used ICT to support plenary and committee meetings. Drawing on shared broadcast and multimedia services, for instance, both the Senate and House of Commons televised and webcast meetings. Both houses also allowed up to two committee witnesses at a time to testify remotely via specially equipped videoconferencing studios available to witnesses at different locations.<sup>15</sup>

More recently, Parliament introduced expanded institutional ICT resources for individual parliamentarians and administration employees. “[F]or the past three or four years,” as the Honourable Anthony Rota, Speaker of the House of Commons during the 43<sup>rd</sup> Parliament explained,

the Information Technology team was investing in technology infrastructure, recognizing the importance of providing Members with the ability to connect to their constituents. It was just as important to enable all House Administration employees to stay in touch with the organisation network from anywhere, at any time.<sup>16</sup>



Despite this capacity, use of this expanded institutional ICT by parliamentarians was limited.<sup>17</sup>

For Parliament, parliamentarians and parliamentary staff, the pandemic increased ICT adoption exponentially. On 13 March 2020, the Senate and the House of Commons extended the end date of a planned March adjournment to 20 April 2020 in response to the outbreak of the pandemic and subsequent lockdown in Canada. Parliamentary staff were asked to work from home. After the dangers of COVID-19 became clearer, the House of Commons was recalled on 24 March 2020 to empower the health and finance committees to meet by teleconference or videoconference under expanded mandates to receive “evidence concerning matters related to the government’s response to the COVID-19 pandemic.”<sup>18</sup> These committee meetings were the first in which MPs and witnesses participated remotely. The committees met first by audio teleconference and then, after 9 April 2020, by videoconference.<sup>19</sup>

On 11 April 2020, the House of Commons and Senate were again briefly recalled to consider legislation. At this point, the House of Commons added new committees to the list of committees allowed to meet virtually. This list included the House of Commons Standing Committee on Procedure and House Affairs (PROC), which was mandated to study how members could fulfil their parliamentary duties during the pandemic – including through technological adaptation.<sup>20</sup> The Senate gave three committees the power to meet by teleconference or videoconference, and, on 14 April 2020, the first completely virtual Senate committee was convened.<sup>21</sup> On 20 April 2020, the House of Commons was briefly recalled again. At this time, it created a special committee – composed of all MPs – to examine Canada’s response to the pandemic. The special committee on the pandemic would meet once a week in person with reduced numbers, and, after 7 May 2020, also meet twice a week in hybrid fashion, with the vast majority of members participating virtually.<sup>22</sup>

To make sure that all parliamentarians could participate in committees – including MP participation in the new all-party committee on the pandemic – the Senate and House of Commons administrations conducted inventories of each parliamentarian’s ICT and shipped any missing equipment, such as headsets, necessary for a virtual session.<sup>23</sup> They also worked to integrate Zoom into existing infrastructure.

This software platform was chosen for public virtual meetings because it offered sufficient security features and the capacity for incorporating bilingual simultaneous interpretation and broadcasting.<sup>24</sup>

After consulting widely with various experts and stakeholders – including legal scholars, security experts, software companies and parliamentarians and parliamentary staff from parliaments around the world – PROC released two reports that examined the functioning of parliaments during the pandemic.<sup>25</sup>



In September 2020, the House of Commons resumed sittings using a hybrid format. This format combined videoconferencing with in-person attendance by MPs for both plenary and committee meetings. It also allowed MPs to cast their votes verbally in person or on screen over videoconference.<sup>26</sup> On 27 October 2020, the Senate agreed on similar hybrid measures for the plenary, and, on 17 November 2020, it began allowing all committees to meet either in hybrid format or through videoconference only, subject to technological feasibility. In addition to authorizing in-person voting, the Senate permitted senators to vote by holding up cards indicating “yea” or “nay,” or an abstention, over videoconference, a system that minimized the additional time required for votes.<sup>27</sup>

On 25 January 2021, the House of Commons adopted a motion to use a remote voting application, pending training, simulations and agreements from the party whips. The application was first used on 8 March 2021 and is designed to work concurrently with in-person voting. It relies on facial-recognition software to confirm that the proper voter is inputting their vote. On average, the system reduced pandemic-era voting time from 45 minutes to between 12 and 15 minutes.<sup>28</sup> Prior to the pandemic, recorded votes took approximately 10 minutes.<sup>29</sup>

After a new Parliament began on 22 November 2021, the House of Commons again voted to allow hybrid plenary, hybrid committee meetings and remote voting.<sup>30</sup> The Senate also again agreed to motions allowing hybrid plenary and committee sittings, and voting by videoconference.<sup>31</sup>

Overall, the pandemic has accelerated the adoption of ICT in Canada and around the world. As the IPU puts it, “the situation, however challenging, is acting as a catalyst for new and transformational digital practices.”<sup>32</sup>

#### 4 OPPORTUNITIES

While extremely difficult, the first year and a half of adapting to COVID-19 has highlighted both opportunities and challenges for realizing traditional parliamentary ideals through ICT. The IPU’s 2020 report and survey indicated that, among parliaments that have adopted remote methods, 24% plan to keep them in place, 24% plan to abandon them and 52% plan to retain some of the innovations. One-third of the latter group plans to retain the ICT innovations primarily for committees but to drop them for the most part for plenaries.<sup>33</sup>

The most basic success of ICT adaptations has been at the operational level. Globally, despite a sharp learning curve, differences in Internet speeds, unequal access to the Internet among countries and technical glitches, parliaments are successfully using, or significantly expanding the use of, remote technology to allow them to legislate and make policy. As mentioned above, ICT has allowed 65% of committees to operate remotely and continue pre-pandemic forms of scrutiny of government policy and legislation.

The experience has been similar in Canada and other Westminster-style parliaments. The Honourable Anthony Rota stated that the House of Commons

Administration regularly worked with Members to address ... issues, and, while there were some initial technical challenges – something to be expected when you are conducting videoconferences for hundreds of people – these were largely resolved.<sup>34</sup>

In the same vein, Lord Norton, a member of the United Kingdom (U.K.) House of Lords, described the technical adaptation of the House of Lords by saying that “[t]he technology represents a success story, one unachievable had the crisis occurred some decades ago. It has enabled the House [of Lords] to function.”<sup>35</sup>

In some respects, the digitalization of legislating and scrutiny functions has its advantages. Worldwide, some legislators have found that virtual plenary and committee meetings operate more efficiently.<sup>36</sup> Several U.K. parliamentarians have commented that the overall process of voting is more flexible by a remote app, and, in some cases, more parliamentarians have participated in votes than previously.<sup>37</sup> Speaking at an online Canadian Study of Parliament Group (CSPG) conference on 14 May 2021, Canadian parliamentarians remarked that interventions via videoconference on the Senate floor are generally shorter and more efficient, and that attending sequential online committee meetings is easier in virtual space.<sup>38</sup> More broadly, the IPU notes that both the continuation and improvement of legislating and scrutiny functions through ICT is important not only for adapting to COVID-19, but also for shoring up parliaments against the potential disruptions of other emergency situations.<sup>39</sup>

Remote parliamentary work has been praised for increasing representation of a more diverse set of interests and perspectives as it facilitates the participation of parliamentarians with child care commitments or medical vulnerabilities. It also allows legislators who are located far from a legislature to contribute more easily and with less disruption to their parliamentary and family lives.<sup>40</sup>

In committee work, remote communication platforms may increase representation in some countries by facilitating greater witness diversity and expertise. For instance, in the United Kingdom, during the first few weeks of allowing Internet-based videoconferencing in committees, the Treasury, Health and Social Care, Science and Technology, and Home Affairs committees maintained an “exactly equal balance between male and female witnesses.”<sup>41</sup> Observers in the United Kingdom and Canada have suggested that people from farther away and with less ability to travel can participate more easily in a virtual setting.<sup>42</sup> Witnesses may feel less intimidated about testifying online than they would in person.<sup>43</sup> Moreover, it has been argued that greater witness diversity and expertise improve the ability of legislators to oversee the government and to hold it to account.<sup>44</sup>

Additionally, virtual working allows legislators to increase linkages with other governing bodies, interest groups and constituents because they can stay in their constituencies more often and can set up Zoom or MS Teams calls to speak directly with stakeholders.<sup>45</sup> In the spring of 2020, at the outset of the pandemic, 55% of Canadian MPs reported an increase in the use of Facebook, 42% mentioned an uptick in the use of interactive live videos and 22% said they had used telephone town halls for the first time.<sup>46</sup> Legislators around the world have also related that greater engagement with citizens by email and social media has allowed greater targeting of specific audiences and of young people in particular. Similarly, parliaments have reported increased support for civil society organizations and parliamentary monitoring organizations, support that is facilitated by the increased availability of online parliamentary documents in open-source formats.<sup>47</sup>

Finally, remote work decreases the cost of parliament because parliamentarians travel much less. In a large country like Canada, saving is particularly marked because parliamentarians often must travel by air. In its 25 February 2021 report, the Parliamentary Budget Officer (PBO) estimated the costs and savings of a hybrid parliamentary system in Canada if Parliament continued similar attendance patterns to those observed since 5 December 2019, the beginning of the 2<sup>nd</sup> Session of the 43<sup>rd</sup> Parliament. Measured against this benchmark, Parliament would save \$6.2 million annually and reduce its greenhouse gas (GHG) emissions related to travel by about 2,972 metric tons of CO<sub>2</sub> equivalent.<sup>48</sup> Measured against a second model, in which half of parliamentarians participated in person, the PBO estimated annual savings of \$2.4 million and a reduction in GHG emissions of 2,039 tons of CO<sub>2</sub> equivalent.<sup>49</sup>

## 5 CHALLENGES

### 5.1 GENERAL CHALLENGES

Many of the immediate challenges of increased remote work for parliamentarians mirror the challenges of remote work for people in other fields: fatigue, reduced trust, greater opportunity for misinterpretation and less spontaneity.

Much ink has been spilled about “Zoom fatigue,” the disproportionately exhausting effect of meeting by videoconference compared with meeting in person. Psychologists point to distortions these platforms make to in-person social conventions. Videoconferencing demands unnaturally long periods of close eye contact, seeing oneself on camera for whole meetings and reduced mobility. It also replaces non-verbal communication, which people interpret easily and subconsciously in person, with overly self-conscious gestures or easily misinterpreted body language.<sup>50</sup> Other research suggests that people find it more difficult to develop trust if they mainly interact online.<sup>51</sup>

As well, the strict technical and social conventions of videoconferencing and instant messaging do not easily lend themselves to spontaneous, informal interactions that can promote unity and spark new ideas.<sup>52</sup> People find it harder to chat informally to acquaintances if they must make an appointment or send a message to a particular address.

Communicating largely online in the parliamentary sphere, Canadian and U.K. parliamentarians, journalists, staff and citizens have similarly complained of difficulty reading the body language of ministers, other parliamentarians, witnesses and staff; less unity and trust among parliamentarians because of a lack of ongoing contact; and less spontaneity in all interactions and more technical and procedural rules governing those interactions.<sup>53</sup> Some Canadian MPs have described their difficulty maintaining connections to their party, both federally and locally. Others have commented that connections with new colleagues are particularly difficult to maintain because they have no previous in-person relationship to sustain the less rewarding online interactions.<sup>54</sup>

Much like people working and communicating in other spheres, parliamentarians report being overloaded with online communication. While social media and online town halls can increase linkages, Canadian MPs have commented that they find it difficult to separate key information from less important social media “noise.” The increase in email volume has also left some MPs and MPs’ staff fatigued in their efforts to keep up – particularly during the early pandemic, when citizens needed answers urgently.<sup>55</sup> Moreover, some U.K. MPs’ staff have described experiencing increased online abuse.<sup>56</sup>

Some Canadian MPs have reported finding it difficult to get a sense of the “general pulse” among their constituents. The pandemic favours online communication and discourages MPs meeting citizens more spontaneously when they are out in the constituency.<sup>57</sup> Despite the increase in quantity of online connections, some Canadian MPs also think that the quality of the relationship with constituents has been declining compared to connections based on in-person interactions.<sup>58</sup>

As well, parliamentarians must deal with ICT technical limitations and problems. Shaila Anwar, Principal Clerk of the Senate Committees Directorate, noted that remote and hybrid committee meetings in Canada must be scheduled between 11:00 a.m. and 7:00 p.m. to accommodate Canada’s large area and possible remote participation from parliamentarians based in any one of Canada’s six time zones.<sup>59</sup> Committee schedules are further limited by the set-up time and personnel required for each online session (as well as for measures to mitigate the spread of COVID-19 during the pandemic). This means that committee meetings sometimes cannot extend beyond the allocated time or new time slots must be found to continue committee work.

Canadian officials have also highlighted that simultaneous bilingual interpretation between French and English – Canada’s two official languages – depends on participants using microphones and Internet hardware that allow for sufficiently clear audio signals.<sup>60</sup> Presenters at the CSPG conference noted that Canadian parliamentary meetings are particularly vulnerable to the many technical disruptions that affect this audio and interpretation capacity. Speaking more generally about the success of ICT for Canada’s Parliament, one parliamentary official at the conference commented that the institution will never pass the “last mile” of technical problems. Internet signals can always weaken, witnesses forget headsets, audio becomes distorted, all of which can cause the work of Parliament to be delayed.

## 5.2 CHALLENGES TO FULFILLING PARLIAMENTARY FUNCTIONS

In the Westminster parliamentary context, increased workload and fatigue, reduced trust, greater opportunities for misinterpretation, less spontaneity and technical difficulties can have negative effects on fulfilling parliamentary functions, in addition to creating general challenges.

The risks to the scrutiny function are clearest. Parliamentarians, journalists and academics report that Canadian and U.K. ministers are making speeches with less oversight and under decreased pressure because they cannot read the mood of a parliamentary chamber or committee room, and feel the mood shift against them. As well, members cannot ask pointed questions as easily because they have less opportunity for spontaneity and fewer opportunities to build alliances with other members.<sup>61</sup> Several Canadian MPs have also commented that heckling in the House of Commons plenary has changed due to the shift to hybrid plenary sittings. On the one hand, heckles are more disruptive, because they cause the Zoom screen to shift to the heckling MP and away from the speaker. On the other hand, only one person can heckle, because the screen focuses on one person at a time. Several MPs have commented that the hybrid format has led to less heckling.<sup>62</sup> Some attribute this decline to the fact that only the most passionate MPs on an issue are willing to be singled out and risk admonishment by the Speaker of the House of Commons.<sup>63</sup>

Similarly, the mediation of ICT can undermine the quality of parliamentary deliberation and oversight. Speaking at the CSPG conference, Canadian parliamentarians noted that members in committee and in parliament are less likely to work out an issue and come to new conclusions over email, text and videoconference because they lack opportunities for spontaneous informal discussion. Lucinda Maer, Deputy Principal Clerk in the U.K. House of Commons, described a similar effect of Zoom on U.K. committee negotiations:

Members may speak in bilateral calls or by text message after the committee but unlike in the committee room where you can watch alliances form or disagreements continue – this is all invisible to those not included in the call or messaging group.<sup>64</sup>

Furthermore, parliamentarians have fewer opportunities for quick, informal access to their political staff during committee meetings and for informal contact with committee staff to shape and discuss the findings of reports.<sup>65</sup> Indeed, at the CSPG conference, several parliamentarians complained that their efforts to maintain connection to staff and colleagues across several devices further distracts them from these discussions.

Some evidence suggests that remote work may change the dynamics of legislating. While remote voting makes voting easier to integrate with fulfilling other parliamentary responsibilities – such as committee and constituency work – it may also make it harder for parliamentarians to resolve issues or find compromise, according to anecdotal reports by parliamentary clerks for the parliaments of the U.K. Crown Dependencies – Guernsey, Jersey and the Isle of Man. For example, “on two separate occasions in the Isle of Man, a set of emergency regulations was lost on a division,” a rare occurrence in that parliament. The clerks suggested that the legislation was not passed because “[m]embers could not gather in the margins of a debate to resolve differences, agree compromises and do the business of politics.”<sup>66</sup> Speaking at the CSPG event, one U.K. parliamentarian also hypothesized that several late-night House of Lords votes would have gone the other way if remote voting had not encouraged the participation, from home, of members who might be less engaged with the issues, and likely would have otherwise missed the votes.

While an increased online presence can increase linkages with many groups of people, digital parliament can also undermine representation. Canadian MPs have reported losing touch with constituents with poor Internet connections.<sup>67</sup> More generally, Canadian parliamentarians, witnesses and constituents living in rural and northern regions often lack the same access to high-speed and reliable Internet enjoyed by people living in urban and southern Canada. This difference in access can make participation in online parliamentary life more difficult for some populations than for others.<sup>68</sup>

As well, several Canadian MPs have recounted being less able to represent constituent interests in online plenary, committee and caucus meetings. Videoconferencing largely eliminates informal “water cooler” talk among MPs – informal talk that once allowed MPs to “bend the ear” of a colleague or a minister on a constituent issue.<sup>69</sup> As one MP put it, in an anonymous research interview on 1 May 2021, digital parliament has “been limiting because a lot of work is done informally in terms of raising issues, causes, and concerns of your constituents just by sort of impromptu conversations with different ministers, whether that’s in caucus or in the lobby.”<sup>70</sup> This point has been echoed by several U.K. MPs, who lamented losing informal in-person access at Parliament to ministers, and to the prime minister, to represent constituent concerns.<sup>71</sup>

Hybrid parliaments can also create inequalities between parliamentarians participating in person and those participating online.<sup>72</sup> In addition, less informal contact and weaker social connections between parliamentarians mean that they are increasingly receiving information from party whips. This dynamic centralizes power in party hierarchies and may decrease the diversity of views.<sup>73</sup>

## 6 SELECT NEW INITIATIVES

While the pandemic has led parliaments to introduce various innovations, some parliaments are advocating, and experimenting with, even greater ICT use.

Advocates of ICT often argue that it has the potential to contribute to the legislative function of representation and its related ideal of transparency, in particular. They claim that the more parliamentary data, reports and debates are available electronically, the more this information may be accessed by citizens and parliamentarians. And the more a parliament integrates social media and software that allows two-way communication, the more citizens may be able to engage with parliamentarians and parliaments directly.<sup>74</sup>

Some legislatures are developing this two-way engagement with citizens using both old and new ICT. Using older technology in new ways, the National Assembly of Zambia conducts radio programs while the legislature is sitting. During the program, “experts explain the order of parliamentary business and invite questions on specific topics. Responses are immediately given by experts on air or the next day if further consultation or research is needed.”<sup>75</sup> Similarly, the United Kingdom has increased the ability for citizens to engage with MPs through e-petitions.<sup>76</sup> Using more recently developed technology, some U.K. MPs are using artificial intelligence (AI) to discern trends in social media of citizens’ views on certain issues. Some parliaments are also studying the use of AI to triage constituent inquiries and to design a chatbot to help constituents find legislative information online.<sup>77</sup>

Other innovations exist in the areas of legislating and scrutiny. For instance, to improve legislation, the Brazilian Chamber of Deputies and the United States House of Representatives are using AI to improve legislative drafting.<sup>78</sup> Similarly, the National Assembly of Nicaragua has developed a legislative impact analysis tool to support legislators and committees in their legislative and scrutiny functions. The tool allows officials to record possible impacts of legislation and policy with respect to “gender, intergenerational poverty reduction, environment and intercultural participation.”<sup>79</sup> It then produces quantitative analysis available to legislators during the legislative process.



## 7 PRINCIPLES FOR ASSESSING INFORMATION AND COMMUNICATION TECHNOLOGY

As the pandemic continues and after it ends, parliaments will have to assess each ICT according to parliamentary ideals and citizen expectations. Some researchers and parliamentarians who study ICT have suggested principles for assessing the risk and benefits:

- Use hardware and software that suit the particular purpose of the parliamentary activity and the types of relationships that this activity promotes. For instance, experiments in using online town hall chats suggest that some platforms can increase reflective engagement about policy among legislators and a large group of citizens. These platforms can allow citizens to respond to one another asynchronously and anonymously, over a long period, rather than in real time to social media posts.<sup>80</sup>
- Develop ICT iteratively rather than all at once. The 2020 IPU report notes that  
[t]here being no perfect solution, trying to find one may stall progress. In Chile, rather than attempt perfection, the Chamber of Deputies delivered a “minimum viable product,” adding functionality or fixing bugs through iterative releases later as solutions emerged in the live environment.<sup>81</sup>
- Involve legislators, legislative staff and technical staff in developing and choosing ICT early on in the process. This helps to avoid producing technology that frustrates parliamentary functions. In particular, the IPU states that “for ICT to be transformative, [legislators] must take the lead in achieving greater openness and citizen participation.”<sup>82</sup>
- Look for ways to rebuild, by online means, informal channels between parliamentarians, and between citizens and parliamentarians, when in-person interactions are difficult. For instance, scheduling regular informal Zoom calls between parliamentarians from different parties who are all working on a given issue helps recreate in-person connections.<sup>83</sup>
- Consider interpretation and translation needs in selecting or designing ICT. For instance, Canada’s Parliament requires or strongly encourages parliamentarians and witnesses to use approved integrated boom microphones to ensure sufficient audio quality for bilingual simultaneous interpretation over Zoom.<sup>84</sup>
- Find ways, where possible, to reduce differences between the experience of parliamentarians working in person and that of parliamentarians working from home.<sup>85</sup>
- Be sure to protect the data of parliamentarians and citizens. Remote working and ICT are generally increasing the demands of citizens for more direct access to parliamentarians. They are also increasing security risks for managing citizens’ data.<sup>86</sup>

## 8 CONCLUSION

Ultimately, the rise in ICT use during the pandemic has presented parliaments and parliamentarians with new choices about how to maintain and develop parliament as an institution. Compared to technological adaptation during the pre-pandemic period, using this technology, or expanding its use, is now much easier. Many parliamentarians and staff are now comfortable with using ICT to work remotely. Citizens are also increasingly used to online engagement.

At the same time, ICT can alter the political and interpersonal dynamics that animate parliament's core functions of legislation, scrutiny and representation. Historically, parliamentary practices have been developed in face-to-face debate and conversation. They reflect long-standing procedures and conventions of the parliamentary cycle, rather than those of videoconferencing or e-voting. Drawing from the pandemic experience to date, parliaments are in a better position to decide which – if any – forms of ICT to maintain and develop in the future, and how best to use them.

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### NOTES

1. This HillStudy uses the term “digital parliament” to refer to the broad range of information and communication technologies (ICT) that parliaments use to fulfil their parliamentary functions (e.g., websites, e-voting, videoconferencing and artificial intelligence). The term “virtual parliament,” commonly used in Canada, is narrower and usually refers to the parliamentary use of videoconferencing and related software.
2. For an analogous examination of the function of legislatures in the context of the COVID-19 pandemic and ICT adaptations in the United Kingdom (U.K.), see Meg Russell, “[Parliaments and COVID-19: principles and practice: challenges and opportunities](#),” The UK Political Studies Association Specialist Group on Parliaments blog, 2 December 2020.
3. See, for instance, David C. Docherty, *Legislatures*, 2005; and Philip Norton, *The Commons in Perspective*, 1985. For a more comparative perspective that addresses the core functions of legislatures more generally, see Amie Kreppel, “[Typologies and Classifications](#),” in Shane Martin, Thomas Saalfeld and Kaare W. Strøm, eds., *The Oxford Handbook of Legislative Studies*, 2014.
4. For legislation to minimize the impacts of the COVID-19 pandemic in Canada, see Government of Canada, “[Government of Canada's response to COVID-19](#),” *Protecting Public Safety and the Well-Being of Canadians: Legislative and Other Measures – Coronavirus Disease (COVID-19)*.
5. See, for instance, Senate, [About the Senate](#); and United Kingdom Parliament, [What is the role of Parliament?](#)
6. See Anthony Birch, *Representative and Responsible Government: An Essay on the British Constitution?*, 1964.
7. See, for instance, Meg Russell, “[Parliaments and COVID-19: principles and practice: challenges and opportunities](#),” The UK Political Studies Association Specialist Group on Parliaments blog, 2 December 2020.
8. On the relationship between transparency, accountability and representation, see J. M. Carey, *Legislative Voting and Accountability*, 2008.
9. Inter-Parliamentary Union (IPU), *World e-Parliament Report 2018*, 2018, p. 19. More broadly, the IPU has since 2017 broadened its definition of e-Parliament to cover “people” (the users and beneficiaries of ICT) and “processes” (the parliamentary or democratic functions that are being supported or transformed by ICT), in addition to simply commenting on “data” and “infrastructure.” See *ibid.*, p. 18.

10. Ibid., pp. 20–21.
11. Meg Russell, "[Parliaments and COVID-19: principles and practice; challenges and opportunities](#)," The UK Political Studies Association Specialist Group on Parliaments blog, 2 December 2020. For a discussion of the effect of early pandemic emergency measures on scrutiny and representation in Canadian federal and provincial parliaments, see Erica Rayment and Jason VandenBeukel, "[Pandemic Parliaments: Canadian Legislatures in a Time of Crisis](#)," *Canadian Journal of Political Science*, Vol. 53, No. 2, June 2020; and Steven Chaplin, "[Fashioning a Pandemic Parliament: Getting On with Getting On](#)," *Canadian Parliamentary Review*, Vol. 43, No. 3, Autumn 2020.
12. IPU, [World e-Parliament Report 2020](#), 2021, p. 15.
13. Ibid., p. 65. Legislators around the world listed the ability to provide more information and documents on a website and an "increased capacity to disseminate information and documents" to members and staff as the most important improvements in the last two years. See *ibid.*, p. 43.
14. Ibid., p. 74. The report notes that its data on "digital maturity" for high-income countries is less robust because the survey answers for this question among some high-income countries were incomplete or unquantified.
15. House of Commons, [Guide for Witnesses Appearing Before House of Commons Committees](#); and Presentation by Shaila Anwar, Principal Clerk, Committees Directorate, Senate of Canada, to the online conference of the Canadian Study of Parliament Group (CSPG), *A Year of Pandemic Parliaments: The UK and Canadian Experiences / Une année de parlements en période de pandémie : les expériences du Royaume-Uni et du Canada*, 14 May 2021. CSPG events follow the Chatham House Rule, which allows participants to use any information received at a meeting, but not reveal the identity or affiliation of any speaker. See Chatham House, [Chatham House Rule](#). Shaila Anwar has given permission to the author to cite her name, comments and background notes.
16. The Honourable Anthony Rota, "[The Story of the Virtual Parliament](#)," *Canadian Parliamentary Review*, Vol. 44, No. 1, Spring 2021.
17. Interview conducted by the author with Soufiane Ben Moussa, Chief Technology Officer for the House of Commons, 18 August 2021.
18. House of Commons, [Journals](#), 24 March 2020.
19. House of Commons, [Virtual Committee Meetings](#), Fact sheet, 9 April 2020.
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21. The Senate committee was completely virtual, with the notable exception of committee staff who, like House of Commons staff, have needed access to interpretation, transcription, live broadcasting and webcasting technology tied to the physical committee room. See Presentation by Shaila Anwar, Principal Clerk, Committees Directorate, Senate of Canada, to the online conference of the CSPG, *A Year of Pandemic Parliaments: The UK and Canadian Experiences / Une année de parlements en période de pandémie : les expériences du Royaume-Uni et du Canada*, 14 May 2021; and Senate, Standing Committee on Internal Economy, Budgets and Administration, [Evidence](#), 14 April 2020.
22. House of Commons, [Journals](#), 20 April 2020.
23. The Honourable Anthony Rota, "[The Story of the Virtual Parliament](#)," *Canadian Parliamentary Review*, Vol. 44, No. 1, Spring 2021; and Presentation by Shaila Anwar, Principal Clerk, Committees Directorate, Senate of Canada, to the online conference of the CSPG, *A Year of Pandemic Parliaments: The UK and Canadian Experiences / Une année de parlements en période de pandémie : les expériences du Royaume-Uni et du Canada*, 14 May 2021.
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35. Lord Norton, "The impact on behaviour in the House of Lords," in Paul Evans et al., eds., *Parliaments and the Pandemic*, Study of Parliament Group, January 2021, p. 86. See also Australia, House of Representatives Standing Committee on Procedure, "[Chapter 3 – Reflections on a time of change](#)," in *The House must go on: Report of the inquiry into the practices and procedures put in place by the House in response to the COVID-19 pandemic*, December 2020; and David Wilson, "How the New Zealand parliament responded," in Paul Evans et al., eds., *Parliaments and the Pandemic*, Study of Parliament Group, January 2021, pp. 187–193.
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