Measuring Legislative Activity during the Covid-19 Pandemic: Introducing the ParlAct and ParlTech Indexes

Ittai Bar-Simann-Tov, Cyril Benoît, Olivier Rozenberg, Israel Waismel-Manor, Asaf Levanon

Measuring Legislative Activity during the Covid-19 Pandemic: Introducing the ParlAct and ParlTech Indexes

*Ittai Bar-Siman-Tov, Olivier Rozenberg, Cyril Benoît, Israel Waismel-Manor & Asaf Levanon**

Abstract:

This research note introduces two novel indexes designed to measure legislative activity (ParlAct) and use of digital devices to maintain legislative functions (ParlTech) during the first wave of the Covid-19 pandemic. We also introduce a novel comprehensive dataset on the functioning of legislatures during a critical period of the pandemic, providing scores of 152 domestic legislatures on both ParlAct and ParlTech indexes. Finally, we argue that both indexes could also serve as templates for future research on legislative activity during other pandemics, crises and contingencies.

Wey words:
Covid-19; coronavirus; legislatures; parliaments; legislative activity; crisis; index

I.   INTRODUCTION

During Spring 2020, the Covid-109 pandemic brought an unprecedented challenge for parliaments and legislatures all around the world (Bar-Siman-Tov 2020; Norton 2020). Considering the gravity of the health crisis, and the need for prompt action, granting special emergency powers to the executive was the typical, and certainly not unprecedented, response (Bjørnskov & Voigt 2020; Grogan 2020). At the same time, however, questions about the role of the other governmental branches become of prime importance (Ginsburg and Versteeg 2020; Petrov, 2020). Among them, legislatures are especially important given their role within political systems – whether these systems are pluralistic or not. Parliaments constitute indeed a universal political institution that was, crucially, largely threatened from various standpoints during the pandemic. Three distinct (though interrelated) series of threats posed by the current context are worth mentioning.

First, parliaments do have a material dimension: they are places where human beings sit together and engage iteratively in verbal exchanges. Social distancing measures, such as lockdowns and limitations on assembling, pose obvious threats in that respect. In countries such as Canada, Fiji, Ireland, Mexico, New Zealand and Oman, business was limited.[1] In others, like Haiti, India, Malaysia, Serbia, Switzerland, the UK or Zambia, legislatures were even adjourned

---

[1] Source: authors' ParlAct data (March 23rd until April 6th 2020) and InterPares Parliamentary Data-tracker (February to June, 15, 2020).

or dissolved for several weeks, and in some cases, months.[2] It has been estimated that, as of April 8th 2020, two billion people in the world had their legislatures shut or limited due to these policies (Provost et al. 2020). Despite the measures taken, a few assemblies turned into clusters of the pandemic with the infection - and sometimes death - of MPs, clerks and assistants. This was notably the case in France and Iran (Bar-Siman-Tov 2020).

Second, legislatures also constitute the main institution in which opposition to government has an influential say and possesses a range of symbolic and material resources. This, of course, implies that the expression of dissenting or diverging views can be guaranteed from the benches of the parliament. The Covid-19 pandemic was again a challenge from that perspective given the difficulty of expressing alternative views and criticisms in times of national unity. Challenging the responses offered by governmental (often legitimized by medical authorities) was indeed delicate when questions of life and death were at stake.

Last but not least, legislatures are not only law-making authorities but are also expected to engage in a range of oversight activities (Griglio, 2020). Questioning ministers, tabling topical debates or conducting in-depth investigations, sometimes through a special committee, is indeed a crucial feature of the 'democratic kit' and are essential to ensure public accountability of elected officials, particularly when it comes to policies. Granted, the context of the Covid-19 have not made these tasks impossible to perform but has certainly rendered it more difficult. Some of them, as parliamentary questions, require that the parliament be open. Moreover, and as mentioned above, it soon appeared that some governments took the opportunity of the situation to get rid of major parts of parliamentary scrutiny. A comparative survey thus reports that the risk of 'pandemic backsliding' was particularly severe in countries such as El Savador, Hungary, India, Philippines, Serbia, Sri Lanka and Uganda (Edgell et al. 2020; Lührmann et al., 2020).

Measuring legislative activity under a pandemic (and particularly a pandemic of this specific kind) is thus a crucial issue – not only for political scientists and legal scholars interested in how legislatures responded or were affected by the spread of Covid-19, but also for the public at large. This brief research note provides the foundation for such measurement. It introduces two novel indexes measuring legislative operation under Covid-19. The first (ParlAct) captures legislative activity on an ordinal scale. The second index (ParlTech), also on an ordinal scale, focuses on the use of digital devices that have served to maintain some legislative functions in spite of lockdowns or similar measures. In addition to discussing their properties, we provide scores for both indexes in 152 countries (i.e. nearly all countries in the world with a population of over 1,000,000), based on an original and novel dataset – one of the most comprehensive datasets collected on the operation of parliaments during the first stage of Covid-19. The remainder of this paper is organized as follows. Section II briefly reviews existing research on governmental activity under Covid-19. Section III presents our method and data collection strategies. Sections IV and V introduce ParlAct and ParlTech indexes, respectively. Section VI introduces our dataset. Section VII discuss our findings, and Section VIII concludes by drawing their implications for future research on legislative activity during critical events.

---

[2] Ibid.

II.   EXISTING RESEARCH ON GOVERNMENTAL ACTIVITY UNDER COVID-19

Significant efforts have been paid by a number of academic institutions, NGOs, and civic organizations to track and report governments' responses and activities since the spread of Covid-19. Many of these initiatives gather various data, documents and visualization on the policies that have been adopted by different governments around the world (e.g., the Covid-19 Law Lab jointly established by the World Health Organization, the United Nations and others[3]; the Worldwide Non-pharmaceutical Interventions Tracker for COVID-19 by IBM[4]; the Coronavirus Government Response Tracker by University of Oxford (Hale et al., 2020)), or their impact on democracy and freedoms (e.g., the Global Monitor of COVID-19´s Impact on Democracy and Human Rights by International IDEA and others[5]; the COVID-19 Civic Freedom Tracker by the ICNL, ECNL and others[6]; V-Dem's Pandemic Backsliding Project (Lührmann et al., 2020)). Others, focus on gathering substantive qualitative reports and scholarly analysis on legislative and governmental responses from around the world (e.g., the Lex-Atlas: Covid-19 project[7]; Comparative Covid Law[8]; as well as many special issues in journals and blogs[9]). Many additional initiatives are listed in COVID-DEM, an info hub for tracking, compiling, and sharing information on how state responses to Covid-19 are impacting democratic governance (Daly, 2020).

These contributions are useful to get a broad picture of policies adopted across the globe. Subtler cross-national indexes are nonetheless still needed to capture how specific institutions have been affected or managed to continue their operation under the pandemic. This particularly applies to legislatures. Recent accounts suggest that the three core functions they fulfill (representation, scrutiny and legislation) require fine-grained analysis, as these activities are inherently multi-dimensional (Rayment and VandenBeukel, 2020). Yet, to our knowledge, existing efforts in that respect essentially consist of single-country or small-*n* studies (see e.g. the studies discussed in Cormacain and Bar-Siman-Tov, 2020b; and see also Chaplin 2020; Malloy, 2020; Thomas, 2020) or essentially descriptive reports (e.g., Inter-Parliamentary Union, 2020; Crego and Mańko 2020; Murphy, 2020; Law Library of Congress 2020; Smith et al. 2020).[10] To fill this gap, we developed a novel, quantitative index specifically focused on legislative activity during the Covid-19 pandemic. Moreover, as technological and digital devices were crucial for many legislatures' continued operation across the globe (e.g., Del Monte, 2020; Rozenberg, 2020; Williamson 2020), we also developed a separate index to capture the extent to which these devices were used. Introducing a second index also enables

---

[3] https://covidlawlab.org

[4] https://ibm.github.io/wntrac/

[5] https://www.idea.int/gsod-indices/#/indices/world-map?covid19=1

[6] https://www.icnl.org/covid19tracker/

[7] www.lexatlas-c19.org

[8] https://www.comparativecovidlaw.it/

[9] See, e.g., (Cormacain and Bar-Siman-Tov, 2020a; https://www.theregreview.org/2020/04/20/comparing-nations-responses-covid-19/; https://verfassungsblog.de/category/debates/fighting-covid-19-debates/; https://www.cambridge.org/core/blog/tag/country-responses-to-the-covid19-pandemic/

[10] We should note two recent important initiatives from after this article was submitted: the InterPares Parliamentary Data-tracker; and the Parliaments in the Pandemic project organized by the Research Committee of Legislative Specialists of the International Political Science Association.

us to draw a subtler picture of the legislatures' functioning: some legislatures have been active but mainly though virtual meetings whereas other kept working as usual.

It should be acknowledge that our main focus with both indexes is to offer a comparative and quantitative tool on the ability of legislatures to continue to operate during the pandemic. This in itself is a crucial measure, as the continued operation of the legislature is important not only for symbolic reasons, but is also a necessary prerequisite for it to perform its various functions, such legislating, oversight etc. Yet, it should be noted that our indexes provide only the basic (even if prerequisite and indispensable) level of examination on the functioning of legislatures. Our indexes could provide the basis for follow-up in-depth case-studies that will add the substantive qualitative examination of how well legislatures actually carried out their functions after being able to maintain or resume operation (e.g., quality of legislative oversight, extent, quality and constitutionality of legislation enacted, etc.). They could also provide the basis for follow-up qualitative studies on how the use of digital tools influenced to operation of parliament (such as the quality of deliberation, participation and rights of the opposition parties, of back benchers, changes in obstruction, etc.). The data produced by our indexes could give direction on which countries constitute appropriate cases for such case studies.

III.   METHODS AND DATA COLLECTION

We first undertaken a comprehensive analysis of how the Covid-19 pandemic and the measures taken to mitigate its effects can affect the operation of legislatures. This notably included an analysis of how the unique characteristics of this crisis interact with the institutional features of legislatures and the way they function (for an elaborate discussion, see Bar-Siman-Tov 2020).

Both indexes were developed by an international multidisciplinary team made of specialists of law (and especially legisprudence), legislative studies, comparative political science, political methodology and medicine. We used these two indexes to respectively assess legislative functioning and use of digital tools in legislatures during their response to the initial shock of Covid-19 as a new, threatening and unknown global risk (we focused on legislatures' operation during March 23rd until April 6th, 2020, which is shortly after Covid-19 was officially proclaimed a global pandemic by the World Health Organization on March 11). To document country scores for ParlAct and ParlTech in all countries beyond 1,000,000 inhabitants, data collection relied on a threefold approach. The first was to mobilize an extensive network of numerous academic experts on legislatures.[11] Each expert was asked to complete a substantive report about the current operation of the legislature in her country (which facilitated the development of the index and ensure its validity), and at the next stage, to answer a short survey, assessing the legislative activity and technological solutions' usage based on the indexes in their country of expertise. One hundred and seventy-two experts kindly shared with us information on their country of expertise.[12]

---

[11] The methodology for creating this network of academic experts was as follows: we reached out to our extensive network of leading academic experts on parliaments (emailing over 200 academics). The network was then extended through a snowball method (asking the colleagues in our original network to suggest additional experts), and by asking for recommendations on additional experts through several relevant academic networks: The International Association of Legislation, COVID-DEM (directed by Tom Daly), the Constitutional Democracy Listserv (edited by Mark Graber), Researchgate, and Academia.edu.

[12] The full list of the experts is available at this address: XXX [REMOVE FOR ANONIMACY]

Expert surveys inevitably result in some bias (see Hooghe et al. 2010 for a review). We thus complemented our first approach by collecting a range of comparative reports from international and national parliamentary research centers focusing on parliamentary activity in various countries during the same period.[13] Finally, we collected reports from hundreds of daily newspaper articles and entries in legislatures' websites with information pertaining to the legislatures' functioning in each of our countries' sample. Publications in English, French, Hebrew and Spanish were directly retrieved. Publications in other languages were translated using Google Translate.

We then controlled for the reliability of both indexes. We independently asked two coders to determine ParlAct and ParlTech scores for each country, based on the information in our datasets without seeing the scores from the experts' survey. Intercoder reliability calculated using Krippendorff's alpha was at $\alpha = 0.81$.

IV.   MEASURING LEGISLATIVE ACTIVITY: THE PARLACT INDEX

The ParlAct Index is an ordinal scale ranging from 1 (legislature is completely closed) to 10 (legislature is fully functioning). Scores 1 to 4 deal with closed legislatures, differentiating those who shut down due to Covid-19 from the ones shut down due to a usual break unrelated to the crisis (such as Easter break or elections recess), whose duration was possibly changed due to Covid-19. Scores 5 to 9 deal with partially operating legislatures, while differentiating types and levels of partial operation: scores 5-7 focus on partial operation in the sense of which legislative institutions (committees or plenum) operate; scores 8-9 focus on partial operation in the sense of meetings' frequency. A 10 score indicates a fully operating legislature (Table 1). Of course, in-between cases are possible, and therefore optimal use of the indexes allows for in-between scores (e.g., 9.5).

It should be noted that one of our early insights was that the behavior of legislatures in various countries changed (sometimes multiple times) throughout this ongoing crisis. Moreover, various legislatures around the world have normal recesses (due to holidays etc.) in different times during the year. Therefore, when using our indexes, it is important to instruct respondents from all countries to focus on the same clearly defined period. Our index asks respondents to report whether their legislature was supposed to be in session, and whether (and how) its operation changed due to covid-19, during this defined period. For example, we asked all our respondents to report only on legislative operation from March 23rd until April 6th 2020 (as we focused on legislatures' response to the initial shock of a new global health risk). To measure long term effects or changes over time, the data collection based on the index should be repeated, each time focusing on a different carefully defined period throughout this prolonged pandemic.

---

[13] The full list of reports from international and national parliamentary research centers is available at this address: XXX [REMOVE FOR ANONIMACY]

Table 1 – Legislative Activity (ParlAct) Index

SCORE	DESCRIPTION
1	Legislature was supposed to be in session this time of the year, but shut down due to Covid-19
2	Legislature is closed due to a usual break (e.g. holiday break, election recess), which has started earlier or was extended due to Covid-19
3	Legislature is closed due to a usual break (e.g. holiday break, election recess), whose duration was not changed due to Covid-19
4	Legislature is on a usual break (e.g. holiday break, election recess), whose duration was not prolonged due to Covid-19, but held 1-2 emergency meetings due Covid-19
5	Legislature is operating in skeletal form: plenum and committees are closed, while leadership of the legislature (e.g., some very small forum of speakers, party leaders) continue to meet
6	Legislature is partly operating: committees are operating whereas plenum is closed
7	Legislature is partly operating: plenum is operating whereas committees are closed
8	Legislature is officially fully operating, but meetings are sparse and are significantly less frequent than during ordinary times (e.g., 0-2 meetings in the last 2 weeks)[14]
9	Legislature is officially fully operating, but meetings were reduced and are somewhat less frequent than during ordinary times (e.g., 3-4 meetings in the last 2 weeks)
10	Legislature is fully operating as usual

V. MEASURING LEGISLATIVE USE OF TECHNOLOGICAL AND DIGITAL SOLUTIONS: THE PARLTECH INDEX

In several countries, the use of digital devices helped maintain legislative operations, even if considerable variations are observable from one country to another. Thus, we adopted a similar approach to the ParlAct Index, focusing not only on whether or not digital devices were used (1), but also differentiating among various uses – ranging from mere communication with other governmental bodies and hearing experts (2) to remote voting (4) (Table 2).

Table 2 – Legislative use of Technology (ParlTech) Index

SCORE	DESCRIPTION
1	Physical presence still used in debate and vote (or legislature is closed). No special digital devices adopted
2	Physical presence still used in debate and vote, but digital devices such as videoconferencing are used to communicate with other governmental bodies, hearings, etc.
3	Plenum still requires physical presence, but committees use digital devices such as videoconferencing and remote voting in lieu of physical presence
4	Both plenum and committees use digital devices such as videoconferencing and remote voting in lieu of physical presence

---

[14] To avoid too much complexity, we did not add sub-categories for the various interactions between 6-7 and 8-9. Hence, generally, for 8-9, it is possible to count one meeting by day whatever the type of meeting (plenary or committee). However, respondents should be encouraged to provide an in-between number when appropriate and to add verbal explanations in such cases.

VI. THE DATASET: PARLACT AND PARLTECH SCORES FOR WORLD LEGISLATURES

Table 3 shares our dataset, displaying ParlAct and ParlTech scores of legislatures in 152 countries from March 23rd until April 6th 2020.[15]

Table 3 – Country-scores for ParlAct and ParlTech

COUNTRY	PARLACT	PARLTECH
Afghanistan	8	1
Albania	6	3.5
Algeria	1	1
Angola	5	1
Arab Republic of Egypt	1.5	1
Argentina	6	3
Armenia	4	1
Australia	8	3
Austria	9	1.5
Azerbaijan	8	4
Bahrain	10	3
Bangladesh	1.5	1
Belarus	10	1
Belgium	9.5	2.5
Bolivia	10	4
Bosnia and Herzegovina	9	2
Botswana	10	1
Brazil	8	4
Bulgaria	9	1
Burkina Faso	6	2
Burundi	10	1
Cambodia	9.5	1
Cameroon	9.5	1
Canada	8	3
Central African Republic	8	1
Chad	10	1
Chile	10	4

---

[15] We originally examined all 159 countries in the world with a population of over 1,000,000. Eventually seven countries (Benin, Dominican Republic, Malawi, Oman, Qatar, Republic of Yemen, and Trinidad and Tobago) were excluded from the current report, because we were not able to triangulate our data and be confident enough about its reliability. We were still left with a very extensive dataset of 152 countries, making this one of the most comprehensive dataset in the world to explore the operation of legislatures during the initial stage of covid-19. For Cuba, Pakistan, and Panama, we were able to report ParlAct, but not ParlTech (indicated by *). For two countries (Palestine and Sudan) we indicate a 0, because we found that they lacked an operating legislature long before covid-19.

Country		
China	2	1
Colombia	5.5	3
Congo (Republic of the)	1	1
Costa Rica	9	3
Côte d'Ivoire	2	1
Croatia	8.5	3
Cuba	3	*
Cyprus	9	3
Czech Republic	7	2
D. P. R. of Korea	10	1
Democratic Republic of Congo	1.5	2
Denmark	9.5	3
Dominica	10	1
Ecuador	10	4
El Salvador	10	1
Equatorial Guinea	9.5	1
Eritrea	1.5	1
Estonia	9	3
Eswatini	10	1
Ethiopia	7	1
Finland	9.5	2.5
France	8.25	2.5
Gabon	8	1
Georgia	8	1
Germany	9	2.5
Ghana	9.5	1.5
Greece	7	2
Guatemala	10	1.5
Guinea	3	1
Guinea-Bissau	3	1
Haiti	1.5	1
Honduras	8	2
Hungary	10	1
India	1	1
Indonesia	9	4
Iraq	9	1
Ireland	9	1
Islamic Republic of Iran	2	1
Israel	9.5	2
Italy	9	2
Jamaica	4	1
Japan	10	1
Jordan	5	2

Kazakhstan	10	1
Kenya	2	1
Kosovo	9	1
Kuwait	8	1
Kyrgyz Republic	9	1
Lao People's Democratic Republic	8	3
Latvia	9	4
Lebanon	1	1
Lesotho	1	1
Liberia	4	1
Libya	10	1
Lithuania	9	3
Madagascar	3	1
Malaysia	1.5	1
Mali	3	1
Mauritania	8	1.5
Mauritius	1	1
Mexico	5	1
Moldova	8	2
Mongolia	10	4
Morocco	10	1
Mozambique	10	1
Myanmar	1	1
Namibia	1	1
Nepal	6	1
Netherlands	8	2
New Zealand	5.5	3
Nicaragua	10	1
Niger	1	1
Nigeria	10	1
North Macedonia	2	1
Norway	9	2.5
Pakistan	6	*
Palestine	0	0
Panama	6	*
Papua New Guinea	1	1
Paraguay	10	1
Peru	10	1
Philippines	1	3
Poland	9.25	4
Portugal	8	2.5
R. B. de Venezuela	10	4
Republic of Korea	10	1

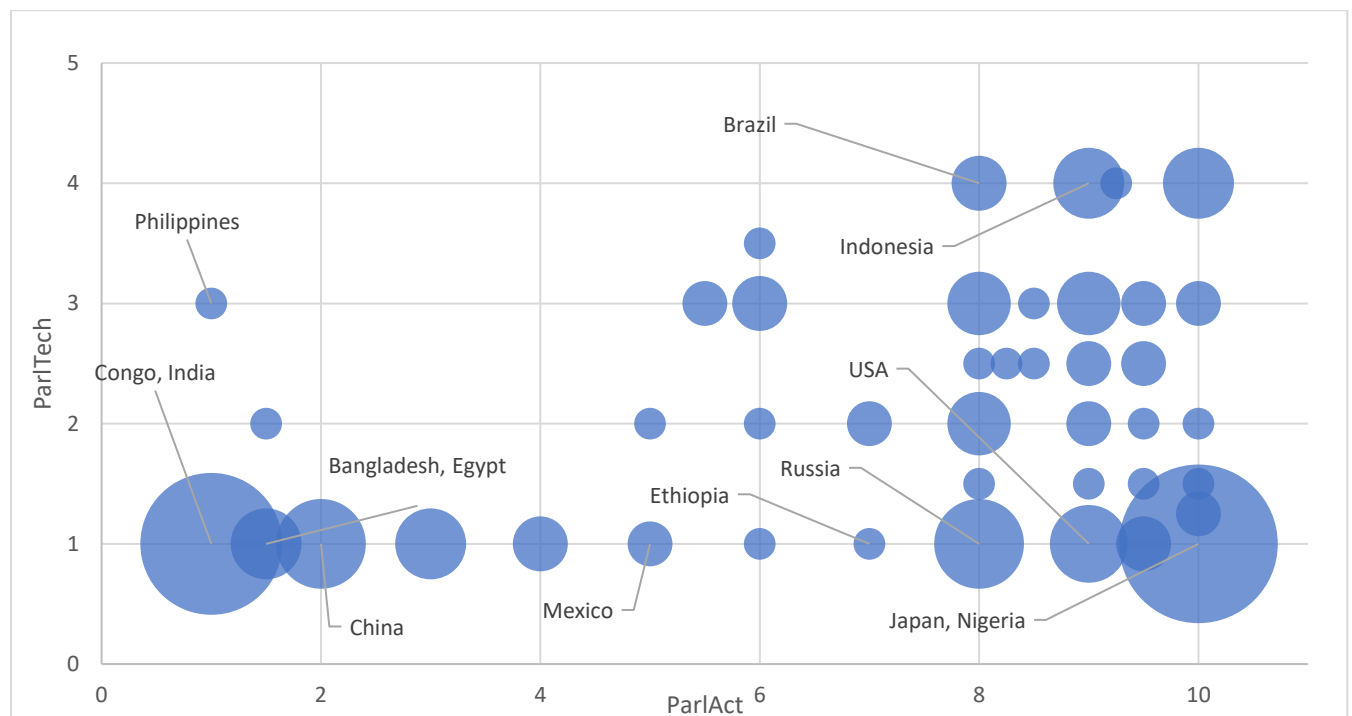|		
Romania	9	4
Russian Federation	8	1
Rwanda	6	3
Saudi Arabia	8	4
Senegal	8	1
Serbia	1	1
Sierra Leone	1	1
Singapore	10	1
Slovak Republic	10	1.25
Slovenia	8.5	2.5
Somalia	2	1
South Africa	1	1
South Sudan	10	1
Spain	8	3
Sri Lanka	2	1
Sudan	0	0
Sweden	10	3
Switzerland	1	1
Syrian Arab Republic	1	1
Taiwan	10	1
Tajikistan	10	1
Tanzania	10	2
Thailand	1	1
The Gambia	1	1
Timor-Leste	10	1
Togo	1	1
Tunisia	9.5	3
Turkey	10	1.25
Turkmenistan	10	1
Uganda	8	1
Ukraine	8	2
United Arab Emirates	6	3
United Kingdom	2	1
United States of America	9	1
Uruguay	9	4
Uzbekistan	9	4
Vietnam	3	1
Zambia	1	1
Zimbabwe	1	1

VII.   DISCUSSION

Scores for ParlAct indicate that the situation substantially differs from one country to another. The same proportion of countries – one out of five – are working as usual (10 score) or are closed due to Covid-19 (scores 1 and 2). If we put aside legislatures that were on usual break during the period under consideration, half of the legislatures of the world has been working partially – which confirms the scientific interest of this issue. The average grade for the whole countries is of 6.6 and varies between continents: 7.8 in Americas and Europe, 6.7 in Asia, 6 in Oceania and 5.3 in Africa.

Further analysis is required to investigate these results. Still, it can be observed that mortality due to Covid-19 seemingly played on a limited role as, at the time of the fieldwork, the pandemic was mostly developed in Asia and Europe and nearly not in Africa. The state of democracy is also to be considered as established democracies may have secured more efficiently the usual functioning of their legislatures. Yet, again, a complex picture emerges from Table 3 as we find established democracies at the bottom of the ParlAct ranking (for instance India, Switzerland and the UK) as well as authoritarian regimes among the countries where the parliament maintained their operations (for instance Bahrain, Belarus or Burundi). This observation questions the very category of legislatures and parliaments beyond their obvious commonalities: the constraining power of the parliament vis-à-vis the executive is not similar from one country to another which may explain why some (democratic or undemocratic) leaders may try to silence it or not.

Finally, the functioning of legislatures is moderately correlated with their capacity to use digital devices (Pearson's r of 0.34 for the whole sample and 0.15 for the countries situated between 5 and 9 of the ParlAct scale). Figure 1 offers a visualization on how the 152 legislatures are located on both axes.

Figure 1. The location of 152 legislatures on both axes

Note: the size of the circle accounts for the number of legislatures corresponding to a given dot. Countries populated with more than 100 million inhabitants are located and specified by name.

Source: the authors

Online conferences certainly helped many legislatures to keep their committees (and more rarely the plenary) working but cannot be considered as a universal rescuer for parliamentary politics. Again, this observation should be considered in the light of the unequal access to digital technologies between countries. The choice for a partial or total online functioning of legislatures also raises delicate legal and political issues. In many cases, laws and regulations have not foreseen this largely unprecedented situation. Chile, for instance, had to change its constitution to permit virtual parliamentary decision-making. In Colombia, the Constitutional Court held that Congress cannot hold virtual sessions based on an authorization provided by a governmental emergency decree that allowed all branches of government to hold virtual sessions (Bar-Siman-Tov, 2020). In other countries, such as Canada and the UK, the choice for hybrid meetings was a matter of intense political controversies between the government and the opposition (Bar-Siman-Tov, 2020; Malloy, 2020). From a more theoretical standpoint, the capacity of parliamentary politics to fully perform is questioned by the remote functioning of legislatures (Rozenberg, 2020). As a result, the dominant political culture(s) and legal tradition(s) also influence the choice for adopting technology which may account for part of the variation of the ParlTech scale.

VIII. CONCLUSION

In this brief research note, we offered two novel indexes for the assessment of the functioning of legislatures during pandemics. Our new indexes constitute a unique universal resource for evaluating and comparing legislatures worldwide. They could allow researchers and civic society to continuously monitor, measure and compare the operation of parliaments during the current pandemic, as well as during future pandemics and other emergencies and crises, such as wars, major terrorist attacks, or environmental catastrophes.

Based on these indexes, we also offered a novel dataset on the functioning of legislatures worldwide during the initial crucial period of the global Covid-19 pandemic. The scores in our dataset indicate that the situation substantially differs across countries; and that, while some parliaments are fully functioning or are completely closed due to Covid-19, the greatest proportion of world legislatures are partially working to varying degrees. This demonstrates that a binary report of whether parliament is operating or not is too crude and paints an inaccurate picture of the real world. This confirms the scientific interest and practical importance of the ordinal index we created. Further analyses are required to investigate our dataset.

This contribution can serve as a basis for future research that would investigate the complex institutional effects of this and future similar crises, and help assess more accurately whether the Covid-19 actually constitutes a potential threat for parliamentary democracy and its most vital organ. We hope that our ParlAct and ParlTech indexes, as well as our dataset, would become helpful tools for academic researchers, parliamentary research institutions, and civic society, worldwide.

References

Bar-Siman-Tov, Ittai. 2020. "Covid-19 Meets Politics: The Novel Coronavirus as a Novel Challenge for Legislatures." *The Theory and Practice of Legislation* 8(1): 11–48.

Bjørnskov, Christian, and Stefan Voigt. 2020. *This Time Is Different? - On the Use of Emergency Measures During the Corona Pandemic*. Hamburg.

Chaplin, Steven. 2020. "Fashioning a Pandemic Parliament: Getting On with Getting On." *Canadian Parliamentary Review* 43(3): 1–9.

Cormacain, Ronan, and Ittai Bar-Siman-Tov. 2020a. "Global Legislative Responses to Coronavirus." *The Theory and Practice of Legislation* 8(3): 239–43.

Cormacain, Ronan, and Ittai Bar-Siman-Tov. 2020b. "Legislatures in the Time of Covid-19." *Theory and Practice of Legislation* 8(1–2): 3–9.

Crego, María Díaz, and Rafał Mańko. 2020. *Parliaments in Emergency Mode: How Member States' Parliaments Are Continuing with Business during the Pandemic*.
Daly, Tom Gerald. 2020. "Databases — COVID-DEM." COVID-DEM. Retrieved May 22, 2020 (https://www.democratic-decay.org/databases).

Del Monte, Micaela. 2020. Remote Voting in the European Parliament and National Parliaments.

Edgell, Armanda B., Sandra Grahn, Jean Lachapelle, Ann Lührman, Serahine F. Maerz. 2020. "An Update on Pandemic Backsliding: Democracy Four Months After the Beginning of the Covid-19 Pandemic", *Policy Brief*, 24, V-Dem Institute (June 30, 2020).

Ginsburg, Tom, and Mila Versteeg. 2020. "Binding the Unbound Executive: Checks and Balances in Times of Pandemic." https://www.ssrn.com/abstract=3608974 (May 29, 2020).

Griglio, Elena. 2020. "Parliamentary Oversight under the Covid-19 Emergency: Striving against Executive Dominance." *Theory and Practice of Legislation* 8(1–2): 49–70.

Grogan, Joelle. 2020. "COVID 19 and States of Emergency: Introduction & List of Country Reports." Verfassungsblog. https://verfassungsblog.de/introduction-list-of-country-reports/ (April 17, 2020).

Hale, Thomas, Petherick, Anne, Phillips, Toby, Webster, Sam, Kira, Beatriz and Angrist, Noam. 2020. "Coronavirus Government Response Tracker", University of Oxford Blavatnik School of Government, May 19. https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker

Hooghe, Liesbet, Bakker, Ryan, Brigevich, Anna et al. 2010. "Reliability and validity of measuring party positions: The Chapel Hill expert surveys of 2002 and 2006", *European Journal of Political Research*, 49: 687-703.

Inter Pares. 2020. "Parliamentary responses during the COVID-19 Pandemic – Data Tracker." Retrieved September 10, 2020 (https://www.inter-pares.eu/parliamentary-innovations-times-crisis).

Inter-Parliamentary Union. 2020. "Parliaments in a Time of Pandemic." Retrieved April 11, 2020 (https://www.ipu.org/parliaments-in-time-pandemic).

Law Library of Congress. 2020. LL File No *Continuity of Legislative Activities during Emergency Situations in Selected Countries*.

Lührmann, Anna, Edgell, Amanda and Maerz, Seraphine. 2020. "Pandemic Backslading: Does Covid-19 Put Democracy at Risk?", University of Gothenburg V-Dem Institute Policy Brief, n°23, April.

Malloy, Jonathan. 2020. "The Adaptation of Parliament's Multiple Roles to Covid-19", *Canadian Journal of*

Political Science, 53/2, pp. 305-309.

Murphy, Jonathan. 2020. "Parliament and Crisis: Challenges and Innovations". Parliamentary Primer, 1, International Institute for Democracy and Electoral Assistance.

Norton, Philip. 2020. "Global Legislative Responses to Coronavirus." *The Theory and Practice of Legislation* 8(3): 237–38.

Petrov, Jan. 2020. "The COVID-19 Emergency in the Age of Executive Aggrandizement: What Role for Legislative and Judicial Checks?" *The Theory and Practice of Legislation* 8(1–2): 71–92.

Provost, Claire, Archer, Nandini, Namubiru, Lydia. 2020. "Alarm as 2 billion people have parliaments shut or limited by Covid-19". Open Democracy, April 8. https://www.opendemocracy.net/en/5050/alarm-two-billion-people-have-parliaments-suspended-or-limited-covid-19/

Rayment, Erica and VandenBeukel, Jason. 2020. "Pandemic Parliaments: Canadian legislatures in a Time of Crisis", *Canadian Journal of Political Science*, E-pub ahead of print.

Rozenberg, Olivier. "Post Pandemic Legislatures. Is real democracy possible with virtual parliaments?". European Liberal Forum, Discussion Paper, 2, July 2020. https://www.liberalforum.eu/wp-content/uploads/2020/07/ELF_DiscussionPaper_2_Post-PandemicLegislatures.pdf

Smith, Ben et al. 2020. *Coronavirus: Changes to Practice and Procedure in the UK and Other Parliaments*.

Thomas, Paul EJ. 2020. Westminster Parliaments: Comparing Four Approaches to Emergency Lawmaking and Scrutiny. Toronto.

Williamson, Andy. 2020. "Virtual Members: Parliaments During the Pandemic." *Political Insight* 11(2): 40–40.