

ANALYSIS OF BEST PRACTICES IN OPEN E-PARLIAMENT: CASES, SYSTEMS AND MODELS

ANÁLISES DAS MELHORES PRÁTICAS DE PARLAMENTO ABERTO E DIGITAL: CASOS, SISTEMAS E MODELOS

ANÁLISIS DE LAS MEJORES PRÁCTICAS EN PARLAMENTO DIGITAL Y ABIERTO: CASOS, SISTEMAS Y MODELOS

Cristiano Ferri Soares de Faria¹ Thales Torres Quintão²

Abstract: This article shows the main research results on diverse innovations in social engagement with the eparliament. Our purpose was to map the best practices through Information and Communication Technology (ICT), which promotes the relationship between society and parliament, improving the parliament's transparency, accountability, and responsiveness to citizens. For that, we used four analytical dimensions: political, technological, organizational, and social. According to these four dimensions, we have identified *four types of Open e-Parliament engagement*: 1) communication with citizens; 2) e-participation; 3) e-deliberation/econsultation; and 4) collaboration. For each type, we described and explored some practices in order to generate insights for parliamentary institutional development, considering the Open E-Parliament dimensions.

Keywords: open parliament; ICTs; collective intelligence; innovation; social engagement.

Resumo: Este artigo demonstra as principais inovações parlamentares referentes à promoção do engajamento social. Nosso objetivo foi mapear as melhores práticas por meio das Tecnologias de Informação e Comunicação (TICs), que aperfeiçoam o relacionamento entre a sociedade e o parlamento, melhorando a transparência do parlamento, a *accountability* e a responsividade aos cidadãos. Para isso, utilizamos quatro dimensões analíticas: política, tecnológica, organizacional e social. De acordo com essas quatro dimensões, identificamos quatro práticas de parlamento aberto e eletrônico: 1) comunicação com os cidadãos; 2) e-participação; 3) e-deliberação/e-consulta; e 4) colaboração. Para cada tipo, descrevemos e exploramos algumas práticas a fim de gerar insights para o desenvolvimento institucional parlamentar, considerando essas dimensões de Parlamento Aberto.

Palavras-Chave: parlamento aberto; TICs; inteligência coletiva; inovação; engajamento social.

Resumen: Este artículo muestra los principales resultados de la investigación sobre diversas innovaciones en el sobre parlamento electrónico y abierto. Nuestro propósito era mapear las mejores prácticas a través de la tecnología de la información y la comunicación (TICs), que promueve una mejor relación entre la sociedad y el

¹ Doutor em ciência política e sociologia pela Universidade do Estado do Rio de Janeiro - Instituto de Estudos Sociais e Políticos, Mestre em Políticas Públicas pela Queen Mary College - Universidade de Londres e pesquisador associado do Ash Center for Democratic Governance and Innovation da Universidade de Harvard (2009/10). Realizou pós-doc no programa Algorithmed Public Spheres Program, na Universidade de Hamburgo/Alemanha (2018/9). É Autor do livro O Parlamento Aberto na Era da Internet. Atualmente é professor e pesquisador no Centro de Formação da Câmara dos Deputados, e pesquisador associado do Center for Collective Intelligence do MIT. Orcid: https://orcid.org/0000-0001-5284-385X. Email: ferri.cristiano@gmail.com.

² Doutor em Ciência Política pela Universidade Federal de Minas Gerais (UFMG). Pesquisador do CEDE - Centro de Estudos em Democracia Deliberativa da UFMG e membro do *International Parliament Engagement Network* (IPEN). Atualmente trabalha como Analista na Coordenadoria de Pesquisa em Ciências Sociais do Instituto Guaicuy. Orcid: https://orcid.org/0000-0003-1243-1687. E-mail: thalestq@hotmail.com/ thales.quintão@gmail.com.

parlamento, mejorando la transparencia, la responsabilidad y la capacidad de respuesta del parlamento hacia los ciudadanos. Para eso, usamos cuatro dimensiones analíticas: política, tecnológica, organizacional y social. Según estas cuatro dimensiones, hemos identificado cuatro tipos de Parlamento electrónico abierto: 1) comunicación con los ciudadanos; 2) participación electrónica; 3) deliberación/consulta electrónica; y 4) colaboración. Para cada tipo, describimos y exploramos algunas prácticas con el fin de generar ideas para el desarrollo institucional parlamentario, considerando las dimensiones del Parlamento Abierto.

Palabras clave: parlamento abierto; TIC; inteligencia colectiva; innovación; compromiso social.

1. Introduction

This article shows the main research results on diverse innovations in social engagement with the e-parliament. Our purpose was to map the best practices through Information and Communication Technology (ICT), which promotes the relationship between society and parliament, improving the parliament's transparency, accountability, and responsiveness to citizens.

The selection of the cases was made based on review of specialized literature (Political Science, Sociology, Social Communication, etc.) and examination of institutional documents (news, reports, articles). The authors' experience and expertise on the subject was also crucial to identify these democratic innovations.

The mapping consists of describing and analyzing the examples of good practices. The selected practices are representative samples of each of the defined categories of analysis. These practices account for diverse forms of engagement, and consequently, have different *means* (interactive communication, e-participation, e-consultation, e-deliberation, etc.) and *ends* (transparency, accountability, responsiveness, political inclusion, considered judgment, etc.). All of them contribute to the modernization and institutional development of the parliament, especially if we think about the Open E-Parliament principles.

An e-Parliament is a legislature empowered to be more open, transparent and accountable through ICT. It also empowers people, in all their diversity, to be more engaged in public life by providing higher quality information and greater access to documents and activities of the legislative body. An e-Parliament is an efficient organization where stakeholders use information and communication technologies to perform their primary functions of law-making, representation, and oversight more effectively. Through the application of modern technology and standards and the adoption of supportive policies, an e-Parliament fosters the development of an equitable and inclusive information society (WORLD E-PARLIAMENT REPORT, 2016).

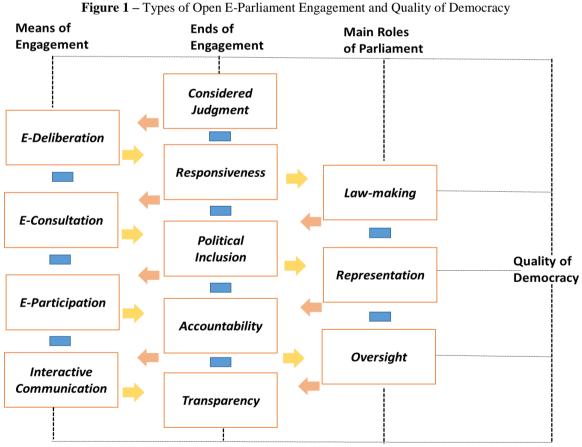
The idea of e-Parliament is connected with the multilateral initiative denominated as Open Government Partnership (OGP). The OGP was launched in 2011 and aims to improve government transparency, accountability, and responsiveness to citizens. One of the principles of OGP is to empower citizens and harness the power of new technologies to make institutions more effective and accountable (OPEN GOVERNMENT PRINCIPLES, 2016).

Because of the OGP's guidelines, another movement has emerged, focusing more on the features and specificities of the Legislative Power: the *Open Parliament*. The Open Parliament aims

to bring together the legislatures and civil society (in collaborative actions) to promote more openness and greater civic participation (or engagement) in public affairs.

Therefore, both concepts of *e-Parliament* and *Open Parliament* support the necessity of parliaments to be more accessible to public inputs through ICT. In that way, these institutions will perform their functions more effectively, improving decision-making and political representation (FARIA; REHBEIN, 2016).

In general, an open e-parliament might promote distinct *means* (e-deliberation, e-consultation, e-participation, interactive communication) and *ends* (considered judgment, responsiveness, transparency, accountability, political inclusion) of public engagement. These two categories can improve the legislature's performance and its roles (lawmaking, representation, and oversight), but mainly the quality of democracy. Citizens engage with and become part of political processes, expanding their discursive capacity and influence in the policy cycle. Thus, lawmakers and citizens can become closer, reducing the gap between them (interactive and communicative representation). These innovations also have sought to improve the efficiency and effectiveness of legislatures (Figure 1).



Source: Own Elaboration, 2021.

To do the description and analysis of each experience, we will use four analytical dimensions: political, technological, organizational, and social. This means our research has the purpose to show

how the best cases of digital innovation fit into these four dimensions: political, technological, organizational, and social.

The **political** dimension involves the following aspects: 1) the *ends of the innovations* and the *stage* of each experience in the *policy cycle* (agenda-setting, formulation, decision-making, implementation, and policy evaluation); 2) the boosting of the *primary functions of the legislature* (lawmaking, representation, and oversight); 3) and the impact on lawmakers and how they take the lead in these processes.

The **technological** dimension is related to the *tools and forms of use of ICT* to promote engagement with citizens. It can happen through apps, internal enterprise applications, publicly accessible institutional websites, mobile applications, email communication, chatbots, etc.

The third one, **organizational**, represents the *bodies and sectors of the parliament* involved in fostering these innovations. Therefore, this dimension focuses on governance, internal aspects, and procedures (workflow).

Finally, the **social** dimension refers to the *means and modes of engagement* with the innovations, which allow citizens to influence legislative actions in different degrees.

According to these four dimensions, we have identified *four practices of Open e-Parliament*. For each type, we will describe and explore some practices in order to generate insights for parliamentary institutional development, considering the Open E-Parliament dimensions. These practices are: 1) *communication with citizens*; 2) *e-participation*; 3) *e-deliberation/e-consultation*; and 4) *collaboration*. Each of practice involves different processes (internal and external), methods, and means and ends of engagement.

The following box demonstrates each of these initiatives and the examples that we will describe/examine here, according to the four analytical dimensions (*political, technological, organizational and social*).

Kinds of E-Open Parliament	Examples
Communication with	Institutional Social Media
Citizens	Chatbots
E Darticipation	e-Petitions
E-Participation	E-Citizenship portal
E-Deliberation/ E-	E-Democracy portal
Consultation	Virtual Congress
	Citizen's Assemblies
Collaboration	HackerLab

Box 1 – Kinds of E-Open Parliament Engagement and Examples

Source: Own Elaboration, 2021.

On the following pages, we will describe experiences related to each experience of Open E-

Parliament. We will show the gains and deadlocks of these experiences, but mainly the potential of digital innovation to foster citizen engagement and the effective performance of legislatures on their primary functions (lawmaking, representation, and oversight). All the selected practices were developed and supported by federal parliaments worldwide, offered as tools available to be used by lawmakers, committess, the floor or other parliamentary bodies.

2 Practices of Open E-Parliament

2.1 Communication with Citizens

The first practice of Open E-Parliament involves developing closer communication and interaction with citizens. Pursuing the goal of public engagement means fostering the *listening practice*. The central aspect is the implementation of certain practices by parliaments in order to receive feedback and comments from the public, which are then analyzed and answered. The most important thing is to build two-way communication.

The main example of these practices is the members' and legislatures' **social media profiles**, but their performances and roles are different. The **members' social media profiles** are more focused on the image of the lawmakers themselves. They aim to improve the political capital of these specific actors. Posts on Facebook, Instagram, Twitter, YouTube, etc., are framed in a personalized way, boosting their personal qualities, political views, and the work developed by their offices, and intend to reduce the gap between representatives and citizens. The goal is to increase the members' cyberbase, that is, the public with whom the lawmakers interact with on social media, in order to mobilize them to become their support group (ALMEIDA ET AL, 2020)³. Gains of political popularity (positive visibility) are the target of the use of these tools. However, members' social media does not meet the public communication principles, i.e., they do not strengthen the public sphere (citizens' discussion and inputs) and citizenship, either the understanding of the parliament tasks and routines (LEMOS; BARROS; BERNARDES, 2016). They are more focused on private logic. Because of that, these initiatives are not our focus in this paper.

On the other hand, **institutional social media profiles** need to incorporate different political voices and agendas in just one arena. The institution of the parliament is one of a collective nature, which actually hinders the implementation of digital transformation in legislatures. In other words, the presence of diverse discourses within the parliament, and consequently the lack of one single voice and leadership to represent it, creates more barriers when it comes to pushing these innovative ideas through. The Parliament's social media channels are managed by parliamentary officials, who are expected to run these channels to be nonpartisan, and impartial at all times (LESTON-BANDEIRA, 2014)⁴; however, it is almost impossible to engage people in a political interaction without using political language.

³ The cyber-base is usually larger than the electoral base (ALMEIDA ET AL, 2020).

⁴ It is worth mentioning that Leston-Bandeira (2014) mobilizes a restrictive idea of politics. That is why we have preferred to use the expression *nonpartisan* instead of *nonpolitical*, as this scholar has used.

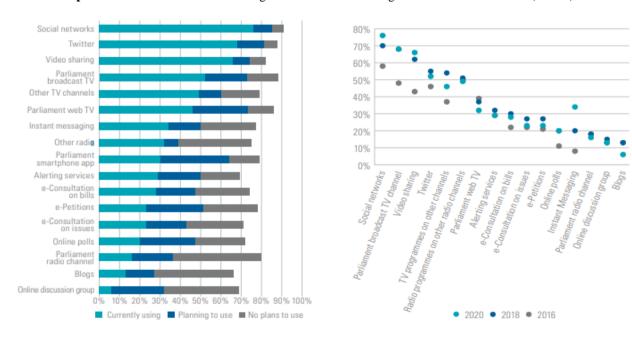
There is one other good practice, which we will describe here: *chatbots*. This initiative aims to facilitate interaction with society and deliver answers more quickly.

2.1.1 Institutional Social Media

In the last years, we have seen considerable investment by parliaments in the use of social media. The argument is simple: legislatures need to be where the people are, and the people are on social media.

Nevertheless, parliaments face challenges and difficulties in engaging people in these digital spaces. Besides the arguments listed above (collective nature, different voices, a-political language), citizens tend to prefer to visit the members' social media and interact directly with them, instead of accessing, for example, the Facebook page of the Legislative House.

The World E-Parliament Report (2020) shows the increase of social networks used by parliaments to communicate with citizens. Actually, this is the most widely used medium of communication between parliaments and the public. Compared to 2016, these numbers have risen. In 2016, 58% of parliaments were using social networks; in 2018 it was 70%; and 76% of parliaments reported using this initiative. However, Twitter use remained constant at 68%, considering the last two years⁵. The images below demonstrate the methods for communication with citizens and the changes between 2016 to 2020.



Graph 1 – Methods for communicating with citizens and changes between 2016 to 2020 (n=111)

Source: World e-Parliament Report 2020.

⁵ It should be noted that 30% of parliaments are currently using customized smartphone apps to communicate with citizens, with another 34% planning to implement this channel. It might reveal an increase in the adoption of these apps in the next few years, which improves the dynamicity and agility in the interconnection forms between citizens and the legislatures.

Researchers have demonstrated three clear priorities, considering the most important objectives of the parliaments' use of social media. They are: 1) informing citizens about policy issues and proposed legislation; 2) explaining what the parliament does; 3) engaging more citizens in the political process (WORLD E-PARLIAMENT REPORT, 2018, 2020; LESTON-BANDEIRA; BENDER, 2013). These objectives refer to the legislation, education, and legitimation of decision functions, respectively (LESTON-BANDEIRA, 2007).

The use of social media also has the aim to attract and communicate directly with people in general. Citizens are immersed in these digital spaces, so parliaments have tried to use social networks to interact with them. But that is not an easy task. The juridical and political terms need to be translated to be more comprehensible. The language needs to be more informal and visual (memes, gifs, videos), adopting a fun style, with caution not to exaggerate it.

The central goal is to show that the parliament is not a distant building, and that it would like to connect with citizens. In other words, the aim is to let people know that legislatures are institutions developed gradually, and that all of us are responsible for its development.

The **European (EU) Parliament** is a good example of social media use to communicate with citizens. This parliament has appropriated several channels, each of them with different purposes. Twitter, for example, is used to call attention to people for public affairs, posting links for if they want to know more. Another resource used on Twitter is posting quizzes about legislative themes to engage more citizens. LinkedIn, in turn, has the aim to engage people to take part on in-depth discussions about EU-Policy. The language tends to be more technical and formal. The strategy to post links to direct citizens to a text or article is also used. On Pinterest they disclose infographics about the EU Parliament actions. This strategy boosts transparency and facilitates citizens' understanding of the data published. Their Instagram presence, for example, due to it being a more visual and image-based social network, is focused on broader themes, such as political education, or on current affairs (mental health and coronavirus, for example). Other social networks that the EU Parliament uses are Flickr, YouTube, EP Newshub, Reddit, Snapchat, and Google+.

However, the major social media used by the EU Parliament is Facebook, for it is the most popular social network. In general, the EU Parliament uses Facebook for two purposes: 1) to promote visibility and transparency; 2) to foster interaction and e-participation. Studies have found that the first objective is more accomplished than the second one (ANASTÁSIO, 2017). There are strategies to provide information on the institution, for example, reports, summaries of debates, videos, etc. The publications refer to common themes for Europe (collective meaning), as it is the case with other social networks.

The intent to promote interaction and e-participation is visible. The EU Parliament often posts online polls and questions to explore the citizens' opinions. These tactics are essential to strengthen the relationship with the people (dual communication). But when there are attempts to develop a more mobilized form of interaction, such as direct participation or dialogue, we observe that it falls short of

its potential. The active users and discursive reciprocity between participants are still restricted.

Nevertheless, in general, the EU Parliament can be considered a benchmark case for social media use. The parliament is invested in these digital spaces and has clear strategies for each of them, even if it faces challenges, like many others legislatures. These challenges are also because of the collective nature of the branch, which, as mentioned, hinders the appropriation of social media.

2.1.2 Chatbots

Chatbots are virtual assistants developed by artificial intelligence and machine learning. They are designed to do the first service to customers or citizens on the websites or digital platforms of institutions or companies.

There are advantages and challenges to using chatbots. Chatbots can act as a filter to deal with simple demands and forward complex cases to humanized care. In addition to agility, availability is another great advantage: they can respond immediately, without limitations on business hours, for example, which makes this technology very effective for repetitive jobs, freeing humans for the trickier activities.

On the other hand, natural language is still a challenge for using chatbots. Experts have searched, in recent years, for ways to make this experience - whether spoken or written - as normal as possible, as if people were interacting with another human. The bot needs to have the ability to "comprehend" diverse forms of speech, accents, and regionalisms, as well as identify common mistakes in the use of language. The development of artificial intelligence is another struggle. As the chatbot depends on training (machine learning), if the questions are not on its script, it will not know how to answer them or solve the demand. All of these situations generate frustrations. The idea is, through artificial intelligence, to allow the chatbot not only to consult its database, but to be able to solve problems by looking for different solutions.

Despite the challenges, a chatbot facilitates citizen engagement in legislative work. This technology can help tackle the following issues: high efforts and costs for management by MPs' offices; fake news response; the difficulties in publicizing parliamentary work; and the lack of a mapping of the citizens' experiences.

There are basically two types of chatbots for parliamentary affairs. The first is the one hired or developed to serve as a private instrument of communication between members and their constituents for electoral or legislative meanings. They work similarly as an individual member' social media and, for same reason, are not included in this research.

The second type of legislative chatbot is an institutional instrument developed and supported by the parliament to help all members in their needs to communicate with citizens in general (not only constituents) about their legislative work. In other words, it functions similarly to an institutional email, but in a 4.0 format, as the following practice.

One experiment in using legislative bots is the Mescuta, conducted by the Brazilian House of

Representatives' innovation lab - the HackerLab -, an agglutination of words which translates to 'hear me out', symbolizing the citizens' appeal to be heard by congressmen.

This innovation was built based on experimental and trial-and-error methods with incremental evolutions, built on continuous user interaction and testing from the first version of the experiment (small scale). This approach changes our natural understanding of failure. Failure here is understood as a necessary part of the innovation process, and it is seen as fundamental for the successful implementation of the innovation project (SANTOS; FARIA, 2019).

The Mescuta experiment was developed at low cost and without the need to hire skilled labor or specific technology. It took place between November 2018 and March 2019 and involved three phases. The first phase was the mapping of existing chatbot technologies used in public and private agencies to get acquainted with the state-of-the-art on the subject. A total of fourteen chatbots from Brazilian public and private agencies were tested.⁶

After that, two tools were thoroughly analyzed and tested: Open Mandate and DialogFlow. Open Mandate was created by an app startup called Civic to assist congressmen in their interaction with citizens. The team did an interface analysis of the app, identifying problems that needed solving before the submission of the project to user tests in the House of Representatives. The DialogFlow, in turn, is a chatbot platform from Google, made to develop conversational interfaces for bots, which the team decided to use because it better met the efficiency and cost/benefit criteria.

The third and last phase consisted of designing the interactions and training the bot. The Mescuta team was granted access to real questions and answers sent by a few congressmen, who agreed to participate in the project anonymously. Based on the questions and answers collected, the team did the 'conversation mapping', i.e., the graphic organization of the collected exchanges. It was possible to derive that many of the exchanges between citizens and legislative representatives followed certain patterns, which could be somewhat adaptable.

The next step was to curate the data and content. Basic answers on the most diverse subjects had to be carefully prepared in order to be automatically used by the virtual assistant and received by citizens. The purpose was to design a conversational format, using accessible language. After that, came the stage related to the feeding and training of the bot. Through this material, the team correlated the answers to possible questions by citizens. This process promotes the 'bot training', i.e, the 'supervised learning', feeding the software with different ways of achieving similar results in terms of conversations. The image below shows the bot training process.

⁶ The chatbots used came from the Ministry of Economy, the Federal Court of Audit of the Union (TCU), the Ministry of Culture, the Santo André City Hall, the Comunitas NGO, the UN Refugee Agency, the Civic App Startup (Open Mandate tool), Casas Bahia, Magazine Luiza, Ponto Frio, Bradesco, Google, IBM, and Banco do Brasil.

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Figure 2 – Platform used for the machine learning process

Source: Faria (2021).

At least five relevant dimensions should be considered when implementing a chatbot project in the Legislative branch (FARIA, 2021): 1) **technology**, which refers to aspects like the type and degree of the algorithm, the process of implementation and development (agile methods, costs, experimentation), code requirements, etc.; 2) **human resources**, accounting for the need for expertise and multidisciplinary teams; 3) **governance**, which involves the data-processing and competencies of the parliamentary bodies; 4) **ethics**, considering the opacity of the algorithms and the need to nurture open innovation, which considers the principles of transparency, participation and accountability; and 5) **impact on decision-making**, that is, in which way does the tool facilitate the interaction between citizens and members, improving the process of sharing information (suggestions, comments, answers) for both, with a reduction on the management cost of this interaction.

2.1.3 Communication with citizens: main reflections

It is possible to note that, among the two experiences mentioned here, labeled as *Communication with Citizens*, are related to the definition of internal and formal processes within parliament.

As for the analytical dimensions, on the **political dimension** we note that all experiments primarily focused on the promotion of transparency and responsiveness (*ends of engagement*), were situated on the *agenda-setting stage* (introduction of new issues), and fostered the *representative role* of legislatures.

Regarding the **technological dimension**, there are differences in the two cases. The first used social networks and the second used a chatbot. The chatbot promotes more dynamic interactions with

citizens and also reduces the costs of management.

On the **organizational dimension**, the manager of the chatbot here cited is HackerLab, from the Brazilian House of Representatives, the body responsible for implementing this experiment. For institutional social media, the decisions and strategies (content, engagement, etc.) usually fall upon the Communication Department and/or ICT Sector. Since these innovations come from the bureaucratic sector, it has been a challenge to engage the politicians in them, for most members do not use these digital tools to interact with society.

Finally, on the **social dimension**, we can affirm that these two initiatives promote *interactive communication* with the parliament and its representatives, improving their listening. Through these initiatives, legislatures and members can access more of the citizens' demands and opinions, so that new ideas can reach the institution, which improves political representation. It is noticeable that the mode of engagement in each of these two cases is similar. Members' social media, for example, attracts people previously engaged with a specific politician, i.e., who have similar political views, the communication being often more based on beliefs and political disputes than on specific bills. On the other hand, the communication developed on chatbots and institutional social networks is moderated and mediated by institutional staff, who filter the messages received, focusing more on the ones regarding the legislative process.

2.2 E-Participation

This kind of Open E-Parliament engagement promotes citizens' participation through ICT. The idea of participation in parliaments aims to expand citizens' vocalization capacity (expression of their demands and interest), amplifying their influence in the decision-making process. Hence, there is a claim for the proliferation of spaces that provides the people's intervention in the political process (*democratizing democracy*).

Thus, participation is integrated into the overall democratic institutions, becoming part of regular political cycle. Besides that, scholars have argued that participatory practices can promote political learning and a sense of community between participants⁷ (BARBER, 2003; PATEMAN, 2012; QUINTÃO; FARIA, 2018; SANTOS; AVRITZER, 2002).

The e-participation can assume various forms: direct participation, expression of one's opinions, consultation, among others. These forms of participation improve responsiveness and social inclusion. However, it is not enough to provide open access to data or information, or to establish interactive communication with people. E-participation demands more complex designs, as well as citizens' engagement and mobilization.

The concept of participation, in general terms, is related to the direct incidence of people's

⁷ It is worth mentioning that the majority of participatory literature, especially the Brazilian one, focuses more on the institutional practices from the Executive Power as the Participatory Budgeting and the Public Policy Councils. Research that focuses on the institutional participation promoted and developed by parliaments (and their specificities and challenges) is still scarce. Therefore, this is an important research agenda.

claims to institutional power. In fact, the preferences are understood as given, neglecting the process of their formation, building, and transformation. It distinguishes, for example, from the experiments that foster public deliberation through ICT (e-deliberation). In these spaces, there is a dialogue exchange in order to expose reasons and arguments to solve a specific problem, allowing participants to change their initial position and building their preferences through communication exchange and mutual interaction (QUINTÃO, 2014). We will describe and analyze these initiatives later.

We will describe two practices of e-participation: 1) **e-petitions**, of which the most famous example is in the House of Commons of the United Kingdom (UK); 2) and the **E-Citizenship** portal from the Brazilian Federal Senate, focusing on its two tools: *Ideia Legislativa* (Legislative Idea) and *Evento Interativo* (Interactive Event, for online public hearings).

2.2.1 E-Petitions

The original e-petitions process was created in 2006 and hosted on the Downing Street⁸ website, i.e., it was a government initiative, instead of a parliamentary one. This situation began to change in 2011, when the Conservative-Liberal Democrat coalition launched e-petitions, and later when the House of Commons institutionalized it with the creation of the Procedure Committee in 2014. After that, a new petition system was set up in July, 2015, built on a partnership with the government, which allowed for the government to close its e-petitions site. This measure enables people to petition the House of Commons and press for action from the government. The petition system's website is hosted by Unboxed, a digital consultancy company from the UK.

The e-petitions system aims to simplify the process of receiving citizen's inputs and ensuring that their concerns are considered by the Parliament and Government. This innovation allows the external public to create and support petitions about a specific policy. A petition needs to be supported by at least six people to be published on the website for other people to support and sign it, and will stay open on the e-petitions website for six months⁹.

The Petitions Committee, which is responsible for managing and evaluating e-petitions and public (paper) petitions presented to the House of Commons¹⁰, usually adopts the number of 100,000 signatures as a starting point for the petitions to be debated in the parliament. But sometimes the committee might choose to not put forward a petition for debate even if it reached 100,000 signatures. These cases apply when the same theme has been recently debated or if the MPs are scheduled to debate it soon. The committee will then inform the citizens about where they can find more information on the issues related to their petition.

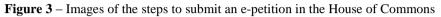
To submit an online petition, the citizens need only to fill out a form, before which the portal

⁸ Downing Street is the official residence and office of the Prime Minister of the United Kingdom.

⁹ According to the World e-Parliament Report (2020, p.66): "the use of more interactive and deliberative tools remains limited, but more parliaments are considering them; e-petitions, for example, were being used by only 23%, but 28% were exploring the option." This sentence shows how it is hard to develop participatory and deliberative arenas in the Legislative branch, due to the need to involve more institutional resources, mobilizing different bodies and actors to implement them.

¹⁰ This committee is made up of 11 MPs from Government and Opposition parties.

shows examples on how they should write the petition (main idea) and asks them to check if similar petitions have already been presented. Later, they need to answer three enquiries: "what do you want us to do"; "tell us more about what you want the Government or Parliament to do"; "tell us more about why you want the Government or Parliament to do it". For all of these, the website shows examples in order to help citizens with what and how to write (UK GOVERNMENT AND PARLIAMENT, 2021). The following images demonstrate each of these stages.



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Ę	Later on, you'll need email addresses for 5 petition started	o supporters to get your		
	Continue			
•				
We found some similar per If one of these petitions matches yours, sign it and s You're more likely to get action on a petition if you so	share it instead	300,147 signatures The Government should create a specific offence for dog theft, with 8 years minimum sentencing and a fine of at least £5,000. Dogs are like members of the family to many people and current laws do not reflect this. Dogs are a support network for so many, a family member, a lifeline.		
 Detition. If there's already a petition on the same to likely to be rejected 	pic, your petition is	Seek Europe-wide Visa-free work permit for Touring professionals and Artists		
intery to be rejected				
Do not rollout Covid-19 vaccine passports		285,871 signatures We would like the UK Govt to negotiate a free cultural work permit that gives us visa free travel throughout the 27 EU states for music touring		
		285,871 signatures We would like the UK Govt to negotiate a free cultural work permit that gives us visa free travel throughout the 27 EU states for music touring professionals, bands, musicians, artists, TV and sports celebrities that		
Do not rollout Covid-19 vaccine passports	ich passports could be	285,871 signatures We would like the UK Govt to negotiate a free cultural work permit that gives us visa free travel throughout the 27 EU states for music touring		
Do not rollout Covid-19 vaccine passports 345,828 signatures We want the Government to commit to not rolling status/immunity passport to the British public. Su used to restrict the rights of people who have refu	ich passports could be	285,871 signatures We would like the UK Govt to negotiate a free cultural work permit that gives us visa free travel throughout the 27 EU states for music touring professionals, bands, musicians, artists, TV and sports celebrities that tour the EU to perform shows and events & Carnet exception for tourin equipment. My petition is different		
Do not rollout Covid-19 vaccine passports 345,828 signatures We want the Government to commit to not rolling status/immunity passport to the British public. Su used to restrict the rights of people who have refu vaccine, which would be unacceptable.	ich passports could be	285,871 signatures We would like the UK Govt to negotiate a free cultural work permit that gives us visa free travel throughout the 27 EU states for music touring professionals, bands, musicians, artists, TV and sports celebrities that tour the EU to perform shows and events & Carnet exception for tourin equipment.		

Source: House of Commons portal (2021).

When an issue arising from an e-petition is debated in the House of Commons, the video of the full debate or its transcription is published on the website. Citizens can search petitions based on popularity, date or place (for instance, petitions people near you are signing), among others (UK GOVERNMENT AND PARLIAMENT, 2021). All of these measures improve transparency and social control.

Therefore, the e-petition system enables citizens to express their claims directly. The aim of this innovation is to promote responsiveness and social inclusion, improving the law-making process of the parliament. These aspects refer to the **political dimension** of the e-petitions. This practice uses only the institutional portal to receive the petitions and publish the debates and results (**technological dimension**).

According to the **organizational dimension**, the Petitions' Committee is the manager of this innovation. The committee is responsible for examining the petitions submitted, and if necessary, can ask for more information, in writing or in person, to petitioners, the Government, or other relevant people or organizations. They can also write to the Government or any public body to press for action on a specific petition; ask another parliamentary committee to look into a subject raised by a petition; and, as it has already written, they can propose a debate in the House of Commons topics from petitions. Therefore, the political effectiveness of the epetitions depends mainly on the work of the Petitions Committee.

Finally, e-petitions enable citizens to introduce new ideas into the parliament. Their suggestions can be considered and debated in the legislature, influencing the agenda-setting and the law-making process. This phenomenon is what we call *e-participation* (social dimension). Thus, e-petition is a collaborative system, which harnesses collective intelligence to produce better and more efficient laws.

2.2.3. E-Citizenship portal

The *E-Cidadania* (E-Citizenship) portal was created in 2012 by the Brazilian Federal Senate. This innovation was an initiative of the parliamentary staff, influenced by the E-Democracy portal of the Brazilian House of Representatives, launched three years before (ROCHA, 2015). However, the design and tools of these two portals are different, and do not enable the same modes of engagement.

The E-Citizenship portal consists of three tools: *Ideia Legislativa* (Legislative Idea), *Evento Interativo* (Interactive Event), and *Consulta Pública* (Public Consultation). In general terms, the goal of this portal is to stimulate and facilitate citizen participation in legislative, budgetary, supervisory, and representative activities in the Senate. It is a digital portal open to public engagement, where citizens can make suggestions on laws in progress and on subjects of public hearings, while also proposing new bills and overseeing the senators' work. For participation, citizens need to register on the website, informing a valid email and a password, as well as their full name.

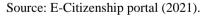
2.2.3.1. Legislative Idea

The Legislative Idea is the most used tool on the E-Citizenship portal. The Legislative Idea allows citizens to send ideas or suggestions for changing current legislation or creating new laws, as well as to support suggestions already sent. The ideas that receive 20,000 backings in four months are forwarded to the Committee on Human Rights and Participatory Legislation (*Comissão de Direitos Humanos e Legislação Participativa*, CDH). The suggestions are then discussed and examined by the CDH, and a report is produced. If the Committee's senators approve the idea, it gets into the legislative process, and the CDH becomes the author of that bill (FEDERAL SENATE OF BRAZIL, 2021).

As it happens with the e-petitions, to send a legislative idea citizens need to fill out a form with the main topic of the idea, title, and description/details. Moreover, users may submit their ideas through videos in Brazilian Sign Language (Libras) or using a toll-free phone number (0800). Both of these measures aim to improve accessibility and social inclusion.

Selecione o tema da sua Ideia Legislativa. Só é possível e	
serectorie o terria da sua facta cegistatival so e possiver e	scolher uma opção. Se a ideia tem relação com várias áreas, indique a principal.
Administrativo	
Título da sua Ideia 🔳	
Exponha, em poucas palavras, o que é essencial em sua	ideia. Seja claro, pois esse campo identificará sua Ideia Legislativa na lista geral.
0 Caracteres digitados 90 Caracteres restantes	
Descrição da sua Ideia 🔳	
Explique o que sua ideia fará se for transformada em lei.	. Você pode descrever o problema que será solucionado com a implementação de sua ideia.
O Caracteres digitados 300 Caracteres restantes Mais detalhes	
Campo opcional – Apresente mais informações sobre sua	a Ideia Legislativa.
campo opcional "Apresente mais mornações sobre sa	
	Oficina Legislativa
0 Caracteres digitados 400 Caracteres restantes	Oficina Legislativa

Figure 4 – Image of the web page to submit a legislative idea



From 2012 until April of 2021, the portal received 89,138 ideas. From these, 182 ideas got at least 20,000 signatures of support: 27 (15%) were transformed into bills; 67 (37%) were discussed by the committee and archived, and 88 (48%) ideas are currently with the CDH to be examined (FEDERAL SENATE OF BRAZIL REPORT, 2021). It is worth mentioning that, in some cases, the CDH organizes public hearings to discuss the suggestions received, and sometimes, the authors of these ideas are invited to participate.

2.2.3.2. Interactive Event

The Interactive Event allows citizens to participate in public hearings and other open events. Through this tool, people can send comments, questions, and suggestions that might be read by senators during the session. Generally, the sessions are broadcast in one of the Senate's channels on YouTube.

Citizens can take part in the events through two means: 1) on each event's website there is a field for sending inputs, which are published if they meet the terms of use; 2) or they can participate using the tool-free phone number. Since 2016, almost 6,000 participations have been recorded through telephone calls in about 1,300 events. All comments published on the event page are delivered to the Secretariat of the respective Committee or body responsible for the event.



Figure 5 – Homepage of the Interactive Event (Evento Interativo)

Source: E-Citizenship portal (2021).

Therefore, the interactive event expands the vocalization capacity of citizens and improves political pluralism and information gain of the House.

After describing the E-Citizenship portal and its tools, we intend to summarize our analysis based on our analytical dimensions. First, we note that this portal promotes regular and open citizen participation. So, the ends of engagement are responsiveness and political inclusion. The E-Citizenship portal concentrates more on the agenda-setting and formulation and decision-making policy cycles. These aspects are related to the **political dimension**.

On the **technological dimension**, the main device is the institutional website. After registering on it, citizens can use all of the tools available. But people can also send their ideas and questions through the telephone, which increases social inclusion.

Regarding the organizational dimension, the e-Citizenship portal is managed by the

Support Coordination Office for the e-Citizenship Program, a body that integrates the Secretariat of Committees. This Secretariat is subordinate to the General Secretariat of the Bureau of the Federal Senate. Thus, there is a specific body in charge of fostering this innovation, which is indirectly integrated with the Bureau. The Bureau is the body with the most power for decision in legislatures.

Finally, the means of engagement are related to the promotion of political participation through ICT, more specifically through an institutional website. Citizens have their voices expanded, and, in some cases, the portal promotes discussions between them. But the practice of e-deliberation is rare, since the comments do not comply to the reciprocity principle, and there are not mutual discussions. The **social dimension** of the e-Citizenship portal is limited to direct participation through digital ways.

2.3. E-Deliberation / E-Consultation

The third practice of Open E-Parliament is **E-Deliberation/E-Consultation**. It encompasses democratic innovations that foster the discussion and communication exchange between participants. Fung (2006) has argued that deliberative innovations contribute to the development and stabilization of society's preferences so that these preferences become clearer, coherent, solid, and more reasonable¹¹. Through these innovations, citizens present their arguments and gain access to different points of view, promoting transparency and reciprocity. This process stimulates collaborative actions, allowing for the collective formulation of reports and suggestions in a public way (public justification) (BOHMAN, 2009; FARIA, 2000).

This initiative and the next one (*collaboration*) are part of the **Crowdlaw** agenda. Crowdlaw can be understood as active citizen participation and co-creation in the legislative process based on the use of the new technologies. Thus, the "public can, in many cases, go beyond contributing opinions and signing petitions online to playing a more substantive role, including: proposing legislation, drafting bills, monitoring implementation, and supplying missing data" (THE GOVLAB, 2021). Crowdlaw advocates that the government needs to take advantage of the population's diverse know-how, backgrounds, and experiences to formulate laws and policies based on a more empirical meaning of the local context (pragmatic sense) (NOVECK, 2018). Hence, *open legislation* and *collective intelligence* are the central principles of the Crowdlaw¹².

¹¹ Nonetheless, Gutmann and Thompson (2007) have argued the provisionality of deliberative processes/innovations, since their procedures aim to produce a decision limited to a certain period. The decision must be provisional to allow for questioning in the future, which enables correcting errors in previous decisions taken and expanding knowledge on a given topic.

¹² We understand that the crowdlaw takes up some deliberative precepts in order to establish argumentative exchanges between different actors, inclusively and thoughtfully, with the aim that these deliberations get into the political-institutional field. Therefore, scholars have advocated the need for institutionalization of these innovations and to formulate policies more dynamic and effective, meeting the citizens' needs (ALSINA; MARTÍ, 2018; LANGLAMET, 2018). In this sense, we believe that the crowdlaw agenda approaches the concept of *pragmatic*

We will mainly focus on three innovation platforms that aim to boost public discussions so that they are developed transparently and grounded in reasonableness and reciprocity. They are: the e-Democracy portal from the Brazilian House of Representatives; the Virtual Congress of the Chilean Parliament; and the Citizens' Assemblies for Legislation (mini-public), from the regional parliament of Belgium. The first two examples promote open participation, which means they are open to all who wish to attend (voluntary self-selection) and enable large-scale participation. The third experiment involves small-scale participation, since the participants are selected randomly in order to deeply discuss a policy and formulate recommendations.

The Brazilian Houses' e-Democracy Portal and the Chilean Virtual Congress offer diverse possibilities of participation for users. Not all of their tools were individually developed as e-consultation or e-deliberation scope, but we have preferred to analyze them as a whole system in order to understand their main overall goal. In the e-Democracy portal, for instance, bills are discussed based in either a virtual community concept or a collaborative draft model (Wikilegis). In this regard, other tools, such as interactive audience, add an interactive and complementary layer that compounds the deliberation system. It is the same to the Chilean Virtual Congress as it follows. And those are different from the Brazilian Senate's e-Citizenship Portal which aims to stimulate more simple and fast interactions (e-participation).

2.3.1. E-Democracy portal

The E-Democracy portal was created in 2009 by public servants of the Brazilian Chamber of Deputies. Nowadays, it is managed by HackerLab (launched in 2014), a laboratory for innovation within the Chamber of Deputies, open to citizen participation (**organizational dimension**).

The portal is a digital participation platform that intends to encourage virtual discussion between citizens and parliamentarians on the legislative process. E-Democracy offers three tools that improve dialogue and participation, in different conditions. These tools are:

 Wikilegis: A tool for collaborative edition of legislative texts, through which citizens are able to comment on articles or proposals or suggest new wordings for legal devices. People can participate by sending suggested amendments or comments on bills and proposals in course, or by supporting or not supporting a proposal (be it legislative or citizen initiative). However, the frequency of participation tends to be more sporadic. From 2016 until August, 2019, Wikilegis concluded 41 debates, with a level of participation ranging from 3 to 450 interactions per legislative proposal.

democracy of Fung (2012), whose focus is more on problem-solving (instrumental aims) and less about justifying them based on political, social, or cultural structures (morality and normative principles). Thus, there is, to some degree, a depoliticization of politics.

	WIKILEGIS	
WIKILEGIS		Fernanda opinou:
		Adorei a nova forma de opinar nos
ê <mark>sua opinião</mark> em proposta: gislativas	S	projetos de lei! 💙
alise as propostas legislativas, contribua dando su inião em trechos do texto e avalie as opintões de tros cidadãos.	a Art. 1º - Analise as prop contribua com sua opin mais representativo.	
COMO PARTICIPAR?		N. F.
Propostas legislativas		
Buscar		
соминісаções Lei Brasileira de Liberdade, Responsabilidade e Transparência na Internet É com muita satisfação que o Deputado Federal Felipe Rigoni, Deputada Federal Tabata Amaral e Senador Alessandro Vieira abrem um processo de consulta pública, através do Wikilegis, mecanismo de e-democracia da Câmara dos Deputados, para a	• SEGURANÇA Prisão em 2ª Instância Trata-se de Proposta de Emenda à Constituição (PEC) para transformar os recursos extraordinário e especial em ações revisionais de competência originária do Supremo Tribunal Federal e do Superior Tribunal de Justiça <u>Veja mais</u>	cléxica E TECHOLOGIA

Source: E-Democracy portal (2021).

2. *Interactive Audiences*: Similar to the "interactives events" of the Brazilian Federal Senate, mentioned earlier, this channel enables MPs to run live Q&A sessions with public audiences, as well as thematic discussions. Brazilians can submit questions to members in real-time during public hearings. These hearings are live-streamed to the website. Moreover, users can support/upvote questions as well, and the most voted questions are forwarded to the Bureau to be answered.



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Source: E-Democracy portal (2021).

Citizens can watch public hearings through the e-Democracy portal (image above) or through the House of Representatives' YouTube channel. While the first is an institutional channel, which allows for moderation of the citizen's posting in the chat; the second one is a private social media, which allows for less interference from public servants. In the e-Democracy portal, comments that are not respectful are deleted and published as images of hearts ("emojis") in the chat. This measure is an attempt to keep the discussion qualified. On the other hand, the comments in the YouTube chat tend to be much more aggressive, with swearing and hate speech targeted to members and citizens. This makes for a more polarized online environment.

3. *Participatory Agenda*: This channel enables citizens to help the Chamber in defining which bills should be prioritized for voting. At the end of the consultation period (two weeks), the parliamentary committee votes on the projects with the highest positive

balance of votes (votes for minus votes against) for each topic. The goal of the *Participatory Agenda* is to identify, for different legislative subjects, what bills have the most consensus among the population, to vote on them in the Chamber of Deputies. Each participant can choose up to two bills to be voted; if they choose two, they earn the right to point out one that they think should not be placed on the voting schedule. This innovation aims at amplifying citizen engagement on the agenda-setting of the policy cycle.



PAUTA PARTICIPATIVA SUA OPINIÃO VALE MUITO	Pauta da Comissão de Trabalho, Administração e Serviço Público ENCERRADA Votação encerrada dia 8 de Dezembro de 2019 1 TRABALHO ▲ ADMINISTRAÇÃO PÚBLICA
A Pauta Participativa é uma forma de você ajudar a Câmara a definir a prioridade de votações dos projetos. Nesta edição, você pode ajudar a Comissão de Trabalho, Administração e Serviço Público a definir sua pauta de votações. Ao final do período de consulta (duas semanas), a comissão votará os projetos de cada tema que tenham obtido o maior saldo positivo de votos, ou seja, votos favoráveis menos votos contrários. Participel	Pauta de Plenário ENCERRADA Votação encerrada dia 27 de Setembro de 2017 ♥ POLÍTICA ¥ SEGURANÇA ◙ SAÚDE
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Projetos de Iniciativa Popular PRC 235/2017	119 3653 saldo: 3534
Regime Simplificado de Consultas Populares PL_7574/2017	155 3053 SALDO: 2898
Transição de Governos <u>PLP 381/2017</u>	455
Lobby PL 1202/2007	728 933 saldo: 205
Desincompatibilização de Cargos PLP 375/2017	561 625 SALDO: 64

Source: E-Democracy portal (2021).

🗩 Câmara dan De

It is relevant to mention that e-Democracy used to have four more tools: 1) *Forums* - asynchronous discussion environments where the subjects are openly proposed (by any citizen) and discussed; 2) *Legislative Virtual Community* (CVL) - a set of tools organized according to a discussion agenda invoked by the parliamentarians themselves, committed to considering what had been discussed when elaborating their reports (a movement from the inside out); 3) *Our Ideas* - a tool that allows participants to present their ideas or proposals for the solution of

problems in just one sentence, as well as contributing to the ranking of the best idea. The final result is expressed through reports with the ranked list of the main ideas presented; and 4) *Freespace* - where citizens can create, with no limitations or previous mediation, their own discussions (a movement from the outside in). The reduction of the channels follows evaluations on performance and relevance, which show the importance of institutional learning to develop digital engagement mechanisms.

In general terms, e-Democracy fosters responsiveness and social inclusion in the legislative process through an institutional portal. It was developed with free software so that its code is open and available for other parliaments to use (**technological dimension**). This initiative facilitates the formulation and implementation of experiments of open e-Parliaments (inter-parliamentary cooperation).

Through the e-Democracy portal, citizens can share information, studies, and other content with each other and with members, and also present proposals for legislative texts. They can also pose questions to the political actors, which improves accountability. This innovation is centered on the agenda-setting, formulation, and decision-making processes, identifying problems and drafting solutions for them. The most successful case so far has come from the youth statute community, which crowdsourced 30% of its final text from young people across the country. Nevertheless, this happened because of the profile of the rapporteur, a member who values citizen participation and digital engagement. Between June, 2009, and July, 2015, less than 10% of the 513 MPs participated in the portal in any way. Studies have shown that legislators face difficulties in handling the digital interaction tools and their incorporation in the parliamentary routine, blocking (or prioritizing) time to post and debate with internet users at the e-Democracy portal (FARIA, 2014; FARIA; REHBEIN, 2016). In some cases, they prefer to interact with citizens on their social media profiles. All of these aspects are related to the **political dimension.**

Regarding the **social dimension**, we can assume the platform does a good job of increasing engagement between the public and members both through the collaborative editing and discussion boards and through the virtual discussion sessions (e-deliberation). However, there is a risk that the manual processing of contributions by legislative consultants may be unsustainable due to the scale of participation. This problem involves the **organizational dimension**, with the bureaucratic challenges of accommodating this portal internally.

Finally, it is worth mentioning that the *Wikilegis* and the *Interactive Audiences* tools are on the *CrowdLaw Catalog* website as good practices of Crowdlaw. The Catalog is developed by the GovLab,¹³ an action research center based at NYU Tandon School of Engineering, and aims "to help those wishing to start new or improve existing CrowdLaw projects to learn from one

¹³ The objective of the GovLab is to promote the design of more open, effective, and networked governing institutions using data, technology, and crowdsourcing.

another". The CrowdLaw Catalog is a growing repository of over 100 CrowdLaw cases from around the world (CROWDLAW CATALOG, 2021).

2.3.2. Virtual Congress

Similar to the e-Democracy portal, Virtual Congress is a web platform that facilitates different types of interaction between citizens and members, fostering public debate and the drafting of laws (*digital participation* and *e-deliberation*).

In 2003, the Chilean Senate created a platform called *Virtual Senator*. Through this digital platform, citizens could express their opinion on the draft legislation and vote on the proposals which interest them most (detailed polls). At the end of the process, a report was formulated with citizens' opinions and then delivered to senators to broaden the points of view and qualify the decisions. The basic idea was to provide the portal user with conditions that enabled citizens to analyze the legislative proposals as if they were a senator themselves, hence the name "Virtual Senator" (FARIA, 2012).

In 2018, in order to improve and promote citizen participation processes in the National Congress, the Virtual Senator was replaced by another platform, the *Virtual Congress* (NATIONAL CONGRESS OF CHILE, 2021). This change was held by the Bicameral Transparency Group, with the support of the Inter-American Development Bank (IDB). In other words, the Bicameral Transparency Group was responsible for the development of the Virtual Congress portal.

This portal offers three tools for citizens' engagement. They are: 1) *Bills for Voting*; 2) *Public Consultations*; and 3) *Proposed Bills*. To use these tools, it is necessary to register on the portal (full name and email).

The first tool (Bills for Voting) allows citizens to express their opinions through votes (online polls) about draft bills that are being processed by the Chilean National Congress. Similar to Public Consultations, users can register comments on the proposals. This tool is divided in voting *in general*, and *voting in particular*. The difference between them is related to the stage of the draft bill and the extension of the participation. The first one (*voting in general*) allows citizens to vote and comment on the fundamental ideas of the bill, i.e., the general aspects of the proposal, mainly restricted to its approval or rejection. The former allows users to vote and comment on specific articles of the bill. The engagement involves examining the bill in detail and by articles. In other words, in this section, the staff uploads all the items of a project for people to discuss.

Currently, there are no draft bills on the *votación en particular* (voting in particular) stage on the portal. According to the Congress Virtual manager, they have not uploaded a specific project yet (*votación en particular*) on the website. Nevertheless, the team has already programmed to add articles for public consideration.

Figure 9 – Images of the Voting Particular Section

Decer					6 PALABRAS DESAR	ROLLADO POR TINY
Desed	que se envíe mas	ivamente este proy	vecto a usuarios sus	critos a los temas a	isociados?	
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Desea o	que este proyecto	o sea destacado? 🕻	•			
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	🖬 Guardar	Agregar Ide	ea Fundamental	Agregar Art	tículo	lar
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	Título					
	Detalle					
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Therefore, the Bills for Voting improve the *e-participation* with the amplification of the citizens' voice on draft bills, as well as deepen the *public discussion*.

The Public Consultations allow users to participate in consultations made by the National Congress or commissions. The users can vote for or against a determined proposal and also leave comments. Comments are published on the website, and then citizens can interact with each other when replying to a comment, for example. This tool promotes the exchange of arguments and motivations, present in the e-deliberation features.

The third tool enables citizens to enter suggestions and vote for the suggestions of other participants. If a proposal reaches at least 100 signatures, it will be added to the Virtual Congress portal, so that it can be voted and debated by the users. This tool improves the agenda-

Source: Virtual Congress portal (2021).

setting and the formulation of laws, qualifying ideas and proposals.



Inicio /

Proyectos de Ley en Votación



Consultas Públicas



	Proyectos de Ley Pl Incluidos a Co		
	¿Hay algún proyecto de ley c que le gustaría que fuera inca Si alcanza las 100 firmas de c sitio, para que pueda ser comunidad activa.	apoyo, este será agregado al	
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En Votación Votaciones Cerradas	En Votación Votaciones Cerradas	Incorporación de Proyectos	Preguntas Frecuentes Manual de Uso Politica de Privacidad Términos y Condiciones Reglamento Glosario de Términos ¿Ouiénes Somos?

Cristiano Ferri Soares de Faria, Thales Torres Quintão

Source: Virtual Congress portal (2021).

In general, the Virtual Congress informs citizens about the bills in clear language, which fosters the educational function of legislatures. Also, the portal has a friendly design that draws in and facilitates citizens' engagement.

This innovation was held in open source to make it adaptable to other parliaments. That way, many legislatures can implement their Virtual Congress according to their needs and characteristics (**technological dimension**).

On the **political dimension**, we note that this portal fosters discussion between citizens in order to qualify the suggestions made. These aspects improve the agenda-setting and formulation stages of the policy cycle, as the Virtual Congress focuses more on the law-making role of parliament.

Regarding the **social dimension**, the platform tries to support and strengthen citizen participation and improve the drafting of better laws through the collective intelligence of the legislation. These collective processes are built through e-deliberation and direct expression (modes of engagement).

Finally, on the **organizational dimension**, we can affirm that the Virtual Congress is run by a committee composed of the Bicameral Group of Transparency, citizen participation and communications/media units, and the secretariats of committees of both departments. In addition, this portal has the constant support of the IT departments of the Senate and the Chamber of Deputies. Concerning administrators, the platform can generate reports through integrated tools, such as data mining, automatic summaries, main subject clusters, spatial and content analysis, etc., that facilitate the visualization and monitoring of citizen participation.

2.3.3. Citizens' Assemblies for Legislation

This innovation involves the selection of participants through sortition to promote deliberation between them about specific legislation, to produce a final report with their recommendations and suggestions. This design has many benefits, as, for example, deep discussion; information gain; transparency; legitimacy; publicly supported and justified decisions; considered judgment; among others.

The choice of the use of sortition aims to boost the *cold deliberation*. The participants are usually lay citizens, without a previous position about a policy. In other words, they may be more inclined to retrain their self-interest, being more open to considering different arguments, making the decision-making potentially more reasonable and reflexive (FUNG, 2003). So seek to answer a fundamental question: "How would the public deal with an issue if they had the time and resources to learn and deliberate about it in order to reach an informed decision?" (ESCOBAR; ELSTUB, 2017).

Unlike the other experiments (e-Democracy and Virtual Congress), Citizens' Assemblies promote citizen engagement on a small scale. Moreover, participation is not open to all who wish to attend. The participation is selected and stimulated within the mini-publics to develop an egalitarian and fair deliberation. Generally, a mini-public has from 15 to 50 participants and involves five stages (DELIBERA, 2021):

- 1. **Planning and recruitment**. A group is formed randomly and distributed geographically (districts) to build a political agenda.
- 2. **Learning phase**. The group of citizens is immersed in the subject. With the participation of specialists, they are provided with diverse, concrete information and diverse points of view that will foster the discussion.
- 3. **Deliberation phase**. Participants engage in small group face-to-face deliberation where they reconsider their initial ideas on the topic in the light of the evidence and testimonies from the learning phase. In the meetings, some principles need to be followed: all voices have the same weight, all arguments are respected, and all opinions need to be supported. With time and information, everyone can come up with more just and convergent solutions.
- 4. **Decision-making phase**. At the end of the process, the group draws up a record of the deliberation (final report). This document symbolizes the concrete participation between the community and those who will decide on the theme (MPs). The final result is not only suggestions. It is a fit of community decisions on a political agenda.
- 5. **Follow-up.** This stage focuses on the impact. One way to ensure it is to involve key public figures and broadcasters in the process. In this final stage, the outcomes and outputs of the mini-public are shared through all relevant networks, informing the broader public of the deliberation and decision-making.

On average, a mini-public lasts three or four months, considering all of the stages. But the timely aspect might vary, depending on the objectives and formats. Each process is designed with proponents (lay citizens who have the task to solve the problem) and discussed, validated, and assisted by the content group (specialists, civil society, interested parties). Hence, there are two groups, one focused on the design and processes of the mini-public and the other related to policy deliberation, recommendations, and implementation.

The use of the ICT during mini-publics has two goals: to boost the discussion and the exchange of information between participants, specialists, activists, social movements, etc.; and to enable the public, in general, i.e., those who are not participating directly in the mini-publics, to follow the work of the Citizens' Assembly, publicizing all discursive processes (and not only the final results) on the websites or YouTube channel, for instance, as well as receiving their ideas and comments. One tool that is customarily used for that end is e-petitions.

The use of ICT has become even more important because of the pandemic. Mini-publics have migrated to the online environment and have been used to help to develop policies for Covid recovery. One example is that of Oregon (USA), in which a virtual Citizen Assembly was organized by a nonprofit called Healthy Democracy and Oregon's Kitchen Table. This Citizen's Assembly was held for two months (July and August 2020), with six meetings, and included 40 participants from across the state and from diverse backgrounds (HEALTHY DEMOCRACY, 2020).

Many parliaments have used *Citizen's Assemblies for Legislation*. We will briefly mention the Citizens' Dialogue in the German-speaking community of Belgium.

2.3.3.1. The Ostbelgien Model - The Parliament of the German-speaking Community of Belgium

The Ostbelgien ("East Belgian") Model, launched in 2019, uses two kinds of randomly selected bodies: Citizens' Councils and Citizens' Assemblies. The first is composed of 24 members and has the role of collaborating in setting the legislative agenda. Its primary task is to determine the topics that will be discussed by the Citizens' Assemblies. The latter, which has 25 to 50 members, aims to develop policy recommendations. These two bodies sit within the German-Speaking Parliament (PDG). Participants deliberate in-person at the parliament building in Eupen, the capital of the region of East Belgium. This design was formulated by G1000, a civil society organization, in collaboration with PDG.

Once per year, the Citizens' Council initiates a call for topic proposals. Any East Belgian can submit a topic for consideration using a form available on the experiment website, either via email or on paper. Later, the parliament offers relevant information to Citizens' Assembly participants, inviting experts to do presentations and selecting an external moderator to mediate the discussion. After that, the Citizens' Assembly formulates a set of policy recommendations, which they discuss at an open meeting. The political actors then choose whether they want to implement the recommendations, and announce their decision at another open meeting. If the MP's want to proceed, they can introduce the necessary measures for implementing the recommendations. If not, they must provide the Assembly with a detailed justification, showing why they have rejected those suggestions.

The policy selected to be discussed and to have proposals developed for was day care. This experiment is even more interesting due to a decree approved in 2019, which establishes and institutionalizes the so-called 'Permanent Citizens' Dialogue' (NIESSEN; REUCHAMPS, 2022).



Figure 11 -- Photo of the Citizen Assembly Meeting - "The East Belgian Model"

There are other cases of the use of Citizens' Assemblies by legislatures. The Irish Citizens' Assembly convened by Parliament, in 2016, recommended and qualified the debate for the Referendum on the constitutional amendment to make abortion legal and declared a climate emergency in the country. It is an emblematic case that can be considered a landmark of deliberative innovation.

Moreover, the Scottish Parliament published a report in 2017 with ideas and recommendations for using mini-publics in parliamentary committees (REPORT ON THE SCOTTISH PARLIAMENT). The general aim of this report is to improve the openness and the scrutiny power by the Legislative branch and also foster public engagement.

Therefore, we can affirm that Citizen's Assemblies develop some democratic ends, such as inclusion and social control. Through these spaces, citizens can improve the law-making process with their ideas and suggestions. These points involve the **political dimension** of this innovation.

On **the social dimension**, we observe that mini-publics are spaces artificially built to promote a qualified deliberation. Even if these spaces were designed to promote in-person

Source: Bürgerdialog portal (2021).

deliberation, there are some experiments that are developing e-deliberation, especially because of Covid-19. Hence, mini-publics are ways of tapping the collective intelligence of citizens, creating an opportunity for engagement that is more informed and thoughtful. And parliaments need to harness these inputs to be more effective and produce better laws.

As the Report on the Scottish Parliament explains:

Mini-publics also provide an opportunity to build capacity in the Parliament by utilizing external knowledge and skills. They complement and inform the decision-making process but, crucially, do not replace the decision taking responsibility of members. This approach is in keeping with the Parliament's founding principles. We consider deliberative approaches would be well suited to bill scrutiny or to examining issues where it is important to understand the public's views on a complex moral or social issue. They could be used as part of an inquiry into an issue where public opinion is divided (REPORT ON THE SCOTTISH PARLIAMENT, 2017, p. 64).

These Assemblies utilize ICT to different degrees, which is related to our **technological dimension**. Through ICT, the general public can follow all the discursive processes developed by the Citizens' Assemblies. The decision-making and the discussions are disclosed on the website and on the YouTube Channel (the meetings are broadcasted through live streaming), for instance. The public can also send their ideas through e-petitions. These ideas can be discussed by participants and incorporated into the final report.

Finally, regarding the **organizational dimension**, we observe the importance of constituting some commissions within parliament to plan and implement the Citizen's Assembly. The commissions are composed of the following actors: parliamentary staff, members, citizens selected by sortition, and civil society organizations. These bodies have also the role to select the theme that will be discussed. Moreover, it is worth mentioning the importance of parliament in building a partnership with the civil society, since these actors are usually responsible for designing the mini-public.

2.4. Collaboration

The last experiment, labeled *collaboration*, is represented by the Labs and Innovation Centers within parliaments. These spaces foster experimental activities and co-construction processes. Their fundamental concern is the user experience and, as said before, mistakes and failures are understood as essential to the innovation process (SANTOS; FARIA, 2019).

The Labs and Innovation Centers organize activities such as *Hackathons* and *Civic Challenges*, among other collaborative initiatives, in order to formulate news projects and solutions to engage citizens with the Legislative power and improve the idea of Open-Parliament.

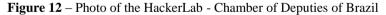
As the name suggests ("hacker" + "marathon"), a hackathon is an "interactive and intense event of definite and brief duration that brings together a range of technical and business

skills in one place" (WORLD E-PARLIAMENT REPORT, 2018, p. 34). This experiment has been used in some parliaments such as the UK House of Commons, the Brazilian House of Representatives, the US National Congress, etc., to produce projects to promote social participation and transparency in legislatures. The main principles of these experiments are: versatility, creativity, boldness, and collaboration, and in doing these events, the staff can learn and use these principles in daily work.

The Civic Challenges, in turn, are competitions organized to bring in the external public and their expertise and intelligence to help solve specific problems that the parliament faces. They do not have a precise term, i.e., the projects do not need to be completed during a single event, unlike with the hackathons. One round of this competition was held in 2017 in the Brazilian House of Representatives. The participants were challenged to create applications that enabled society to better understand the parliament's work (educational and transparency purposes). The winner app enabled citizens to find members with similar political profiles, allowing citizens to monitor politician's activities and make comparisons between them. The second prize was an app that uses citizens' input to anticipate how likely a bill is to become a law (legislative process). The third prize was a chatbot to answer citizens' questions about actions regarding legislatures and MPs.

One example of these spaces as Labs or Innovation Centers is the **HackerLab** in the Brazilian Chamber of Deputies. HackerLab is responsible for organizing hackathon and challenge days within the parliament and for developing the *Mescuta* chatbot experiment as well, as mentioned earlier. According to the HackerLab portal:

HackerLab is a citizen innovation research lab belonging to the House of Representatives focusing on three main themes: transparency, participation, and citizenship, working with collaborative and experimental projects. The lab also aims at creating a functioning network among legislative representatives', public servers/officers, civic hackers and civil society that contributes to the culture of transparency and social participation through public data management.





Source: HackerLab Portal (2021).

HackerLab was created in December 2013. Its origin is related to the first Hackathon organized by the Brazilian Federal Legislative Branch, which occurred in the last week of October of that year. At the event, programmers, developers, entrepreneurs, and experts in new technologies created applications based on data published by the Chamber to improve the transparency of parliamentary work and to improve the understanding of the legislative universe. It must be mentioned that the concept of transparency is more complex, since it is "not enough that the parliaments make information and data about their operations available: they also have to encourage citizens (hackers, for example) to expose their own way of understanding the parliament, and, thus, facilitate the comprehension of other citizens" (FARIA; REHEBIN, 2016, p. 11-12).

In November 2014, the HackerLab promoted the Second Hackathon of the Chamber of Deputies. This time, the theme was gender policies. During the marathon, hackers were encouraged to develop digital tools to help Brazilian society cope with subjects such as enforcement public policies based on gender and representative participation by gender. These themes have been a constant concern of progender activities and researchers. Brazil has high numbers of domestic violence against women, and, according to a UN's report published in 2019, Brazil occupies the 134th position, among 193 nations, in the ranking of female representation in Parliament: only 15 percent of women in the National Congress, despite the majority of the population being female.





Source: Chamber of Deputies of Brazil - Second Hackathon (2014).

Studies have shown that the hackathon experiences have helped to reduce tensions in the usually distrusting relationship between hackers and parliaments. These experiences promote, widen, and include society in the debate about the means of accessing information, and making political participation potentially easier (SANTOS; FARIA, 2019).

Since then, HackerLab has promoted debates with civic activists about new technologies and innovation in public services; studies to develop platforms to facilitate political manifestation analysis; workshops with children, developing gamification on representativeness and citizenship; among other activities. HackerLab is also the manager of the e-Democracy portal, described here earlier.

The Lab uses conversation techniques, such as Design Thinking sessions (DT), World Cafe, and Fishbowl, to foster creativity and collaboration. These approaches are crucial for identifying the main problem of the institution based on empathy and user experience, and also to encourage the formulation of ideas for solving the problem and building a project prototype. All of these stages are anchored on agile culture and are important to test the project's feasibility, to correct the mistakes observed, and to gain learning. The Lab also builds collaboration networks to formulate innovative projects (crowdsourcing), involving partners from diverse bodies of the Chamber of Deputies; advocacy and activist groups; innovation labs from the public sector; universities, etc.

HackerLab is focused on the improvement of two types of Open Parliament. First, *transparency*, improving data visualization, for example, and offering interactive, game-like elements that enable a more accessible and friendly communication with citizens, facilitating their access to and use of information. Second, *political inclusion*, which happens when new issues and discourses get into the parliament (ends of engagement), resulting in a better law-making process. The **political dimension** involves three aspects: 1) open data policy; 2) civil action; and 3) innovation-space for collaboration and participation. This Lab concentrates primarily on the *agenda-setting stage*, fostering the *law-making* and *oversight roles* of the legislature.

Regarding the **technological dimension**, the Lab uses many digital tools to promote civic engagement. They have developed initiatives through *chatbots*, as the one in the Mescuta project; *applications*, during the Civic Challenges and Hackathons; the *institutional website*, managing the e-Democracy portal, for example; *blogs* about its enterprises, reflecting on the stages, challenges, and next steps involved; *social media*, when streaming the debates and publishing the studies organized by the HackerLab on social networks and their new practices; etc. The Lab is an open space that appropriates the new technologies to increment participation and transparency.

On the **organizational dimension**, HackerLab is a body of the Chamber of Deputies. The lab has its own team and constantly interacts with the other sectors of the parliament, such as Committees and the Social Communication and Legislative Consultancy Departments, among others. However, the main challenge, as it constantly happens with public innovation labs, is moving forward with disruptive projects, because of the lack of internal adhesion, which is related to the impact evaluation, and also the low usage by the political actors.

Finally, the **social dimension** is related to the promotion of different modes of engagement through ICT, especially *e-participation*, having sessions and activities which allow for citizens to send inputs to the parliament, increasing their expression capability, which sometimes is also built collaboratively; and the *e-deliberation*, through debates and discussions on specific policies, with the exchange of arguments to formulate innovations. These practices qualify the *citizen representation* process. The guiding principle is to use ICT to tap the intelligence and expertise of the public in order to improve the quality of law-making (Crowdlaw), producing more effective and legitimate laws and policies.

3. Final remarks

This article has mapped some examples of Open e-parliament. The aim was to describe and analyze examples of best practices to serve as references for parliamentary institutional development. These practices show how innovation and innovative methods are driving improvements in parliamentary transparency, openness, and social participation. The democratic innovations here mentioned seek not only to enhance citizen engagement and social inclusion but also to improve democracy. These designs have a pragmatic approach, with the aim of information gain and reduction of distrust in legislatures, as well as an experimental aspect, creating disruptive forms of political representation and legislative processes. However, these innovations do not make binding decisions, i.e., they are not mandatory, and because of that, the final decision concentrates on the political actors (political representation and popular sovereignty).

It is worth mentioning that all of them have different demands related to institutional organization, governance, and technology. Collaboration and e-deliberation were found to be more intense types of Open E-Parliament, considering the political and social mobilization, and at the same time, they depend more on institutional resources and efforts for these innovations to be implemented.

The box below summarizes the main features of these four types of open e-parliament engagement through the analytical dimensions. Besides that, we have emphasized that these types are not only relevant for institutional management and internal development, but also for democracy, thinking about its quality and improvement.

The open e-parliament practices mentioned here might generate more participatory and deliberative democracies in parliaments. These spaces can boost the political representation process, reducing the gap between representatives and represented (representative claim and new discourses in parliament), and thus, the production of laws and policies collaboratively, making them more legitimate and effective.

		Dimensions			
Kinds of Open e-parliament Practices	Examples	Political (ends of engagement and main roles of parliament	Technological (tools and forms of use of ICT)	Organizational (bodies and sectors of the parliament)	Social (means and modes of engagement)
Communication with citizens	Institutional Social Media	Transparency and responsiveness; Representation	Social media and networks	Communication Sector and ICT	Interactive communication and listening
	Chatbots - Meescuta	Transparency and responsiveness; Representation	Chatbot	HackerLab	Interactive communication and listening
E-Participation	e-Petitions - House of Commons (UK)	Responsiveness and political inclusion; Law-making	Institutional Portal	Petitions' Committee	e-participation (direct participation)
	E-Citizenship Portal	Responsiveness and political inclusion; Law-making	Institutional Portal	Support Coordination Office (integrates the Secretariat of Committees).	e-participation (direct participation)
E-Deliberation / E-Consultation	E-Democracy Portal	Accountability and political inclusion; Law-making and oversight	Institutional Website (free software and open code)	HackerLab	e-deliberation (discussions and collaboration)
	Virtual Congress	Transparency and political inclusion; Law-making	Institutional Website (free software and open code)	Bicameral Group of Transparency, Communication/ Media Units and the Secretariat of Committees	e-deliberation (discussions and direct expression)
	Citizens Assemblies for Legislation	Political Inclusion and considered judgment; Law-making and representation	Website (e- petitions) and YouTube	Commission formed by parliamentary staff, members, citizens and civil society organization	Qualified deliberation and collective intelligence
Collaboration	Labs and Innovation Centers - HackerLab	Accountability and political inclusion; Law-making and oversight	Blogs; Chatbot; Social Media; Applications;	HackerLab, Social Communication and Legislative Consultancy Departments	e-participation (expression capability) and e-deliberation (debates and discussions)

Box 2 – Types of Open E-Parliament Engagement and Analytical Dimensions

Source: Own Elaboration, 2021.

The cases here explored must be understood as only benchmarking practices. It is not enough to replicate the designs of these innovations. For this initiative to succeed they need to be situated within a parliament's wider context and culture. And if a legislature intends to adopt a more innovative and open culture, it might consider adapting itself to new ways of working, including the following elements: collaborative networks with the external public (civil society, universities, entrepreneurs, etc.); institutional resources and support within parliament (organizational and governance factors, as well as political will¹⁴ and public pressure); new legal resolutions and frameworks to institutionalize these innovations, contributing to ensure more effectiveness for citizens. These systemic factors enable the creation of new legislative environments.

Lastly, this paper has aimed to map and do a descriptive analysis on the best practices of open e-Parliament. Thus, it has focused more on the potentialities and benefits of these four kinds of engagement (communication with citizens, e-participation, e-deliberation/e-consultation, and collaboration) to advance in parliament's role, and consequently, in representative democracy.

On the other hand, there are some limitations and risks in the performance of the tools here examined, such as the digital divide, the use of these tools to include undemocratic themes and issues against human rights, political efficacy (frustration)¹⁵, social exclusion¹⁶, among others. These are items to be considered for new research agendas when analyzing how each kind of open e-parliament engagement works comparatively (differences, similarities, restrictions and barriers).

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¹⁴ In that case, the Speaker of the House is a fundamental player since he is responsible for defining the institutional agenda and the priorities in parliament.

¹⁵ The concept of political efficacy is related to the feeling that the person has that her action has an impact on the political process, i.e., a sense that usually corresponds to the idea of efficiency in her own daily life (psychology of participation) (ALMOND; VERBA, 1989).
¹⁶ Langlamet (2018), for example, argues that despite the crowdlaw platform has amplified quantitatively, to some

¹⁰ Langlamet (2018), for example, argues that despite the crowdlaw platform has amplified quantitatively, to some degree, the participation of citizens, there are no definitions about *who* should participate (profile of participants and restriction of political engagement).

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