Internet Sectoral Overview

e-Participation: opportunities, challenges and relationship with the Sustainable Development Goals (SDGs)

As a starting point for discussing e-Participation, democracy is considered to be a set of procedures and rights by which citizens: i) choose those who will govern them; ii) influence the decisions of those elected; and iii) hold them accountable, since political participation occurs not only in the electoral dimension, but also in non-electoral practices in civic life. In this context, it is important to define the concept associated with what is called political participation. The concept refers to any activity that seeks to influence the actions of government, either directly, by affecting the formulation or implementation of public policies, or indirectly, by influencing the choices of those responsible for these policies. In other words, in a democracy, participation provides citizens with an opportunity to communicate their concerns and preferences to political representatives and pressure them to respond.

In other words, participation involves communication, and information and communication technologies (ICT), in turn, bring significant changes to ways of interacting. ICT has great potential to bring democratic benefits to any sphere of government, whether local, state or federal, and even in international policies and agreements. In times of intensive adoption of digital practices by citizens and governments, the possibility of associating ICT use with the objective of changing or transforming civil involvement in decision-making processes is a reality in democratic countries (Brazilian Internet Steering Committee [CGI.br], 2016).

The Internet, in particular, can bring about changes in the sense of improving access to information, communication and interaction. It is an environment that significantly and efficiently strengthens – in terms of scope and
Digital channels of communication have been transformed into a path for the expression of individual and collective opinion and the engagement of citizens in political-social discussions.

time invested – contact possibilities and options among citizens, and between citizens and governments, creating and re-creating opportunities for discussion of and deliberation about public matters. In addition, the Internet allows easier implementation of conventional forms of participation – such as contacting politicians, working on campaigns, participating in discussion groups, signing petitions and making donations – reducing costs related to the organization and coordination of collective action (Borge & Cardenal, 2010). In other words, although in-person participation, such as going to a demonstration, can benefit from the use of ICT, for example, by serving as a means of publicizing the action or engaging people, the main changes have been happening in the realm of e-Participation. Also called digital participation or online participation, it is nothing more than digital technology-mediated interactions between civil society and the formal political sphere, and between civil society and the public administration, so that citizens can exert influence, whether individually or collectively, on the outcomes of public decisions (Getulio Vargas Foundation [FGV], 2015).

There is a debate – with evidence on both sides – regarding the potential of ICT to increase the participation of already-engaged people, reinforcing their participation (reinforcement thesis), or to attract or facilitate the participation of people who would otherwise be detached from political life (mobilization thesis). The first assumes that online resources will be used primarily for the political participation of those who are already active and well-connected through traditional channels, whereas the second postulates that the Internet can organize and engage citizens who are currently inactive and marginalized from the existing political system. Despite the effect the Internet has had, and continues to have, on those who participate politically – a complex issue since it involves sociodemographic, psychological and cultural factors – the potential of ICT in this process should be emphasized. It is a fact that the Internet facilitates access to information, regardless of whether it is used for political purposes. Furthermore, considering online participation only, nowadays there are more channels available for people to express their preferences, or even contact their representatives. These channels often reduce participation-related costs (i.e., transportation, time). For example, to contact a politician, receive information, subscribe to a newsletter, make a donation, file a complaint with the government by e-mail, contact an association, participate in surveys or polls, work on a campaign, or participate in a discussion forum, etc., it is necessary to be online and possess certain digital skills, which makes the effort needed for action relatively low.

In the view of Saionara König-Reis, a consultant on the topics of governance, peace, justice and inclusion for the United Nations Development Programme (UNDP)\(^1\), digital channels of communication have been transformed into a path for the expression of individual and collective opinion and the engagement of citizens in political-social discussions, involving the presence of groups traditionally excluded from public debate and lacking representation in parliaments and other government bodies. Even voices that have been repressed in official venues, such as persecuted politicians and human rights advocates,

\(^1\) Saionara König-Reis contributed to the article on a personal basis. The opinions expressed here are hers and do not necessarily represent the points of view of UNDP.
can now be heard. According to König-Reis, such mechanisms can ensure balanced political participation with different opinions and by various groups and sectors of society, including criteria related to age, gender, class, belief, ethnicity and race, and attract groups normally underrepresented in traditional decision-making and participation spaces, all of which contributes to achieving target 16.7 of the Sustainable Development Goals (SDGs)\(^2\) of the 2030 Agenda of the United Nations (UN).

However, for all voices to be heard, one of the main challenges to overcome is fighting digital exclusion. In Brazil, a considerable portion of the population does not have Internet access – and many of those who do have it do not feel motivated or capable of using it for political purposes. For this reason, König-Reis adds that, together with access to technology, there must be a broad educational campaign for political participation in digital environments.

Data from the ICT Households survey shows that, in 2016, 54% of Brazilian households were connected to the Internet. Patterns of inequality revealed in the time series of the survey continued to prevail: Only 23% of households in classes DE were connected to the Internet, and in rural areas this proportion was 26%. Access was more prevalent in households in urban areas (59%) and in classes A (98%) and B (91%) (CGI.br, 2017). In terms of Internet users, among Brazilians 16 years old or older, 61% used electronic government services. However, an examination of certain sociodemographic breakdowns revealed the following situation: 80% of people with tertiary education said they used electronic government, whereas among users with elementary or secondary education, the indices were only 36% and 64%, respectively. Taking income into account, 52% of individuals with household income of up to two minimum wages (MW) used electronic government, whereas among those with household income ranging from two to five MW, the percentages were 67% and 77%, respectively (CGI.br, 2017). It is important to note this context because, as König-Reis comments, the exclusion of certain groups from political participation spaces (whether traditional or digital) can create a false perception of the reality, opinions and needs of the population. Therefore, the fact that smartphones have become the primary device for accessing the Internet creates a promising outlook. In Brazil, 66% of the population accesses the Internet via mobile phones (CGI.br, 2017), such that many citizens are Internet users even though they do not have Internet access in their homes. Nowadays, many digital participation applications and initiatives are promoted by the government, especially at the local level, as well as by civil society, as in the case of the Mudamos platform (see interview on page 8).

There are also other challenges to be confronted so that digital participation mechanisms can benefit society as a whole. Jamil Marques, a professor at the Federal University of Paraná (UFPR), includes “the costs state institutions incur from inviting citizens to participate; while participation imparts legitimacy and broadens the sense of representation, it also requires an updated apparatus and a body of civil servants dedicated to serving users of digital communication networks (whether to provide services or answer simple questions)”.

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\(^2\) Target 16.7 of the Sustainable Development Goals (SDGs) states: “Ensure responsive, inclusive, participatory and representative decision-making at all levels” (United Nations [UN], 2015).
Another challenge, according to Marques, is that it does not suffice to merely offer opportunities for participation in official forums or polls if the representative system is still resistant or unable to effectively consider the demands submitted by citizens through digital channels. This could undermine the participation of citizens, since it would engender mistrust as to the effectiveness of the technological resources for influencing public decision-making. Ultimately, “It is not about a technological change, but transformation of the culture and political behavior”; points out Marques. In other words, two fundamental factors must be considered when contemplating digital participation mechanisms: providing a genuine possibility of influencing final decisions; and the existence of an administrative structure that accepts the opinions of citizens. There are some questions that arise. Once an e-Participation initiative has been well-designed, with the active involvement of citizens and political members, how can practical democratic outcomes be generated? How relevant are institutional structure and platform design for the success of a digital participation initiative? e-Participation mechanisms that are not viewed as an opportunity to influence politics tend to attract fewer participants and reduce (instead of foster) the trust of citizens. Therefore, clarity regarding the objectives and impacts of an e-Participation initiative is vital for its success, as well as the design of such initiatives, since technical issues are also important (CGI.br, 2016).

In Marques’ opinion, however, institutional structure and technological platform design for online participation are two items considered only for more advanced initiatives, since they require an effort that goes beyond mere institutional presence on the Internet (when government websites, for example, are basically concerned about providing a physical address, contact telephone numbers and organizational chart, etc.). On this point, the data from the ICT Electronic Government 2015 survey (CGI.br, 2016) indicated that most federal organizations with websites provided at least contact e-mail addresses for citizens (98%), as did most state government organizations (96%) and local governments (92%). “Contact Us” and electronic forms were the form of communication offered the most after e-mail: 94% and 90%, respectively, in federal organizations, 84% and 76% in state organizations, and 67% and 57% in local governments, respectively. Providing online customer service in real time was the form of communication with citizens reported the least among public institutions, available on the websites of only 11% of federal organizations, 12% of state organizations and 5% of local governments. Another possible platform for interaction between government and citizens is social networks. The percentage of federal and state organizations and local governments that had their own profiles or accounts on these networks was 92%, 74% and 66%, respectively (Chart 1). One of the benefits of the use of social networks by the public sector, in addition to monitoring the needs of society, is the possibility of interaction and/or discussion between government organizations and citizens, which is enabled by these tools (CGI.br, 2016).
Based on this data, the impression is that the Brazilian government, at all levels, offers citizens numerous ways to contact, interact with or even guide those who govern them. Although these communication mechanisms are elements that facilitate interaction between public institutions and citizens, one of the expectations of using ICT in the public sector is the expansion of initiatives that promote the collaboration and participation of society in the decision-making process. However, the ICT Electronic Government 2016 survey (CGI.br, 2016) indicated that still only a small portion of government organizations provided online participation channels, such as public consultations, in the 12 months prior to the survey, as shown in Chart 1.

**Graph 1 - ONLINE INTERACTION AND PARTICIPATION CHANNELS OFFERED BY THE GOVERNMENT**

*Total number of federal, state and municipal government organizations with a website (%)*

In terms of electronic government users\(^3\), data from the ICT Households 2016 survey (CGI.br, 2017) showed that they have been increasing since 2014, corresponding to 50%, 59% and 61% of the total number of Internet users 16 years old or older, in 2014, 2015 and 2016, respectively. With respect to forms of contact, the 2016 data indicated that 7% made contact by e-mail; 7% through websites, electronic forms or chats; 7% through official profiles on social networks; 5% wrote on forums or public consultations of government websites; and 7% participated in online voting or polls on government website pages (Chart 2).

Although the indicators collected by the CGI.br surveys show that participation is still not very significant and occurs through simple mechanisms, limited basically to contact with public institutions, such mechanisms are part of a process moving in the direction of electronic governance that takes public opinion into account. Similarly, making public information available to society is a prerequisite for citizens to be able to monitor their representatives and express their demands and preferences. They are small steps toward more effective, responsive and inclusive institutions, which is the focus of SDG 16 of the UN 2030 Agenda, which seeks to “promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels” (UN, 2015).

König-Reis points out that access to information is addressed in SDG 16.10 (see section “Answers to your Questions”), even though this is a fundamental factor for ensuring social involvement in activities related to all the Goals. As an example, König-Reis mentions that “online access to information about policies and government management directly impacts achieving SDG 16.6, which deals with having strong, effective and transparent institutions, and helps reduce corruption (16.5)”.

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\(^3\) An electronic government user is considered to be an individual who uses any services provided by the government, including those that are not necessarily participation mechanisms.
Regarding the relationship between participation – in this case, in the international sphere – and the UN 2030 Agenda, multisectoral participation is not limited to just SDG 16, but serves as a pillar of the entire 2030 Agenda, which features a participatory process ranging from definition of the targets to the final report. According to König-Reis, since the approval of the new global agenda, there have been some substantial changes in how member states of the UN view the processes and necessary efforts for achieving sustainable development. To optimize the possibility of achieving the SDGs, “It was essential to recognize and institutionalize ways of harnessing and using the different capacities that not only governments, but also civil society and the private sector, bring to the table,” she adds.

According to König-Reis, to promote and ensure participation in the definition processes of the 2030 Agenda and the SDGs, the United Nations Department of Economic and Social Affairs (UN DESA) and UNDP supported more than 70 countries with multisectoral inclusion activities in the processes to identify the challenges, gaps and priorities in their respective contexts. This experience was essential for generating a relatively high level of knowledge, awareness, demand and contribution to the global sustainable development agenda by various actors in society. “To expedite and continue advancing with the goals set forth in the 2030 Agenda, this is precisely why all the processes related to the SDGs – i.e., planning, implementation, monitoring and review of their progress – must be inclusive and participatory,” concludes König-Reis.

In the local, national and international spheres, the Internet has tremendous potential to enhance participation in venues normally considered conventional, but it mainly offers new tools for online participation – although both of these venues must be viewed as a continuum and not necessarily as different worlds. “There is no way to clearly differentiate between what is online and offline,” comments Marques. “Practically everything we were accustomed to do offline now has an online version – and exactly because of this, the distinction between the two loses consistency.” And there is no reason why this should be any different with political participation.

REFERENCES

To comment on how digital participation mechanisms function in practice, we interviewed Marco Konopacki, coordinator of projects related to democracy and technology at the Institute for Technology and Society of Rio de Janeiro (ITS Rio) and the person responsible for the Mudamos platform, an electronic signature mechanism for popular initiative bills.

I.S.O._ What are the advantages of the Mudamos platform, as a digital participation initiative? What benefits do information and communication technologies (ICT) bring to this process?

M.K._ Popular initiatives are a form of democratic participation provided for in the Constitution of 1998; they enable citizens to submit proposals for laws to the legislative branch by collecting a minimum number of signatures from voters. However, even though the right is guaranteed and regulated, no bills have been submitted that went through the actual procedure since the Constitution was enacted. In Brazil, there have been four laws that originated at the grassroots level and were submitted as popular initiatives. Although the bills complied with all the regulatory formalities, they were not officially presented as popular initiatives, [since] the Chamber of Deputies does not have mechanisms to validate these signatures. All the laws were, in fact, “adopted” by lawmakers who had the power to sponsor them as a member of government.

We were also struck by the low number of bills that have been presented in the almost 30 years that the Constitution has been in force. What we noted was that it is very difficult for the population to collect signatures on paper. For a national proposal, 1% of the population must subscribe to it (around 1.5 million signatures). When former judge and member of the Movement to Fight Corruption, Marlon Reis, in a discussion with Ronaldo Lemos [director of ITS Rio], pointed out the difficulty of collecting signatures, the idea arose of using technology to facilitate this process.

The Mudamos application is an instrument designed to reduce the costs of participating in proposals of grassroots bills. The idea is to use technology to facilitate the collection of signatures. By taking signature technologies to mobile phones, reinforced by safe and auditable standards, we created a unique technical model for the application of this technology. Unlike mobilization platforms, which normally only request users’ e-mails, and where it is difficult to confirm only one signature per person and the authenticity of these signatures, the Mudamos application uses signature models based on cryptography technologies to ensure their validity.
The indices for participation via traditional channels are low in Brazilian society. How can this initiative engage more people?

M.K. I wouldn’t say there is low participation through traditional channels. I think the problem, actually, lies in the information needed for participation. People who want to start participating normally lack the tools that would help them learn how to participate, and they depend on people close to them to explain how to participate. When we launched the Mudamos application, we realized that apart from creating a strong technical model, we were and are playing an essential role in publicizing popular initiatives. People have not known that they can submit bills based on collecting signatures to support them. This was reflected in the proposals that were submitted via the application after its launch. The population started presenting many ideas, but none in the form of a bill based on the collection of signatures. This gave rise to the idea of adding a new interface for submitting bills through Mudamos, called “Virada Legislativa” (“Legislative Turnaround”). It is a methodology inspired by hackathons to transform ideas into bills.

Given that the Mudamos platform bills itself as an initiative for democratic participation, how can you ensure that the initiative provides real mechanisms to influence the political process?

M.K. Popular initiatives have a strong institutional design for participation from a technical point of view. This means that the interface has clear rules for participation of the population, while also ensuring an institutional impact if the requirements are fulfilled (collecting the minimum number of signatures). When this occurs, the legislative branch is obliged to table the proposal and start processing it. Discussion of the effectiveness of the proposal occurs as the bill works its way through the House. Moving popular initiative bills forward relies heavily on the political will of the lawmakers who will examine them. When a popular initiative bill reaches the legislative branch, it already has a large number of voters’ signatures, which leads one to assume that these same signers will mobilize for approval of the bill, pressuring lawmakers to process and pass it.
The adoption of electronic tools for participation broadens participation possibilities. Perhaps the effort itself to popularize different democratic digital tools can help apply pressure for increases in policies to provide universal Internet.

I.S.O._ Issues such as privacy, reliability, legitimacy of the process and output, and the digital exclusion of a large part of the population, among many others, must be taken into account when considering forms of digital participation. Which ones would you highlight, and how does Mudamos address these issues?

M.K._ The degree of Internet penetration in Brazil is around 70% of families. The main way the Brazilian population accesses the Internet is by mobile phone. When we were designing Mudamos, there was a technical issue that led us to use mobile phones as a tool for collecting signatures, but we also saw that mobile phones could be used as “electronic pens,” precisely because mobile phones are the main avenue used by Brazilians to access the Internet. We believe that for digital democracy to progress, universal Internet access is necessary. At the same time, in relation to Mudamos, we understood that the application fits in a transition zone between paper and digital. We did not imagine the sole use of electronic signatures, but rather a temporary coexistence between the old and new way of providing signatures. The adoption of electronic tools for participation broadens participation possibilities. Perhaps the effort itself to popularize different democratic digital tools can help apply pressure for increases in policies to provide universal Internet.

I.S.O._ Since the participatory process occurs in an online environment, how do you deal with data security and protection issues, as well as other technological constraints?

M.K._ It is important to note that Brazil still does not have a personal data protection law, which makes this environment less predictable than it could be. Mudamos addresses these issues by offering its users terms of use and a privacy policy that ensures full respect for the personal data of the platform’s users. We also use encrypted communications between our applications in order to prevent any type of attack to obtain data illegally from the platform. However, like any online platform, we are always at some risk. For this reason, we strive to always make our environment sure, to avoid cybernetic attacks or other forms of subverting the signature process. One of the devices used is proof of work for signatures. When providing a signature for any bill, the application installed on the user’s mobile phone performs a mathematical puzzle to ensure that the signature operation is legitimate. By doing so, we prevent malicious individuals from attempting to carry out any type of mass operation. This is an example of a mechanism we use to protect ourselves and to make our signature system stronger.
The dynamics of the registration of domains in Brazil and the world

The Regional Center for Studies on the Development of the Information Society (Cetic.br) carries out monthly monitoring of the number of domain names registered in the 16 largest country code Top-Level Domains (ccTLDs) in the world. Combined, they exceed 106 million registrations. In December 2017, the domains registered under .cn (China) reached 20.69 million, followed by .tk (Tokelau), Germany (.de) and the United Kingdom (.uk), with 19.12 million, 16.30 million and 9.97 million records, respectively. Brazil had 3.92 million registrations under .br, occupying the seventh place on the list. With 1.9 million registrations, Spain (.es) ranked 16th, as can be seen in Table 1.

Table 1 – REGISTRATION OF DOMAIN NAMES IN THE WORLD – DECEMBER 2017

<table>
<thead>
<tr>
<th>Position</th>
<th>ccTLD</th>
<th>Domains</th>
<th>Ref.</th>
<th>Source</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>China (.cn)</td>
<td>20.686.593</td>
<td>Feb-17</td>
<td><a href="http://www.cnnic.com.cn/sjzs/CNymtj/">www.cnnic.com.cn/sjzs/CNymtj/</a></td>
</tr>
<tr>
<td>2</td>
<td>Tokelau (.tk)</td>
<td>19.121.527</td>
<td>Dec-17</td>
<td><a href="http://research.domaintools.com/statistics/tld-counts/">http://research.domaintools.com/statistics/tld-counts/</a></td>
</tr>
<tr>
<td>3</td>
<td>Germany (.de)</td>
<td>16.291.025</td>
<td>Dec-17</td>
<td><a href="http://www.denic.de/">www.denic.de/</a></td>
</tr>
<tr>
<td>5</td>
<td>Netherlands (.nl)</td>
<td>5.796.046</td>
<td>Dec-17</td>
<td><a href="http://www.sidn.nl">www.sidn.nl</a></td>
</tr>
<tr>
<td>6</td>
<td>Russia (.ru)</td>
<td>5.415.610</td>
<td>Dec-17</td>
<td><a href="http://www.cctld.ru/">www.cctld.ru/</a></td>
</tr>
<tr>
<td>7</td>
<td>Brazil (.br)</td>
<td>3.918.671</td>
<td>Dec-17</td>
<td>registro.br/estatisticas.html</td>
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<tr>
<td>8</td>
<td>European Union (.eu)</td>
<td>3.717.972</td>
<td>Dec-17</td>
<td><a href="http://research.domaintools.com/statistics/tld-counts/">http://research.domaintools.com/statistics/tld-counts/</a></td>
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<tr>
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<td>Australia (.au)</td>
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<tr>
<td>11</td>
<td>Italy (.it)</td>
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<td>Dec-17</td>
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</table>

It is important to note that variations exist among ccTLD reference periods, although it is always the most updated one for each country that is used.
In December 2017, the five generic Top-Level Domains (gTLD) totaled more than 165 million registrations. With 131.94 million registrations, the .com ranked first, as shown in Table 2.

<table>
<thead>
<tr>
<th>Position</th>
<th>gTLD</th>
<th>Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.com</td>
<td>131,939,559</td>
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<tr>
<td>2</td>
<td>.net</td>
<td>14,858,896</td>
</tr>
<tr>
<td>3</td>
<td>.org</td>
<td>10,454,247</td>
</tr>
<tr>
<td>4</td>
<td>.info</td>
<td>6,481,315</td>
</tr>
<tr>
<td>5</td>
<td>.biz</td>
<td>2,128,551</td>
</tr>
</tbody>
</table>

Source: http://research.domaintools.com/statistics/tld-counts
Access in: 04/12/2017
E-PARTICIPATION AND THE SUSTAINABLE DEVELOPMENT GOALS

The following is a list of targets from the SDG to which mechanisms of digital participation could contribute:

Especially those from SDG 16...

16.5 Substantially reduce corruption and bribery in all its forms;

16.6 Develop effective, accountable and transparent institutions at all levels;

16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels;

16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements;

16.b Promote and enforce non-discriminatory laws and policies for sustainable development;

... but also the targets from other Goals of the 2030 Agenda:

5.5 Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life;

5.8 Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women;

6.b Support and strengthen the participation of local communities for improving water and sanitation management;

11.3 By 2030 enhance inclusive and sustainable urbanization and capacities for participatory, integrated and sustainable human settlement planning and management in all countries.
WHAT ARE SOME OF THE AREAS AND TOOLS OF DIGITAL PARTICIPATION?

- Petitions
- Referendums
- Polls
- Proposal of ideas
- Discussion forums
- Collection of signatures
- Campaign donations
- Pressuring representatives, e-campaigning
- Public consultations
- Meetings and public hearings
- Voting on bills
- Monitoring, discussion, support, voting on bills
- Participatory budgets
- Communication with politicians
- Oversight of public spending, elected representatives and public policies

/Answers to your questions
/Credits

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