FROM CITIZEN TO SENATOR

Artificial Intelligence and the Reinvention of Citizen Lawmaking in Brazil

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Introduction

Brazil's Federal Senate has developed a set of robust channels that enable greater citizen engagement in each stage of the lawmaking process. This collection of three essays explores Brazil's pioneering democratic innovations and how artificial intelligence (AI) could be used to further improve, expand, and deepen engagement with citizens.

Based on interviews with the head of the Brazilian Senate's e-Citizenship office and a leading expert on legislative innovation in Brazil, the first essay describes the Senate's four groundbreaking citizen participation mechanisms—the legislative idea, interactive event, legislative workshops, and public consultations—and how AI can could make citizen participation even more impactful.

The second essay, authored by the former director of the Hacker Lab in the Brazilian Chamber of Deputies, offers practical insights about how AI can

deepen deliberative democracy in Brazil—and the challenges we still face ensuring that public input feeds into political processes in meaningful ways. Finally, the third essay frames Brazil's experiments within four essential pillars of democratic innovation—defining clear participation goals, developing an engagement economy, honoring citizen contributions, and embracing deliberation—collectively telling the story of a nation transforming democracy from within and offering vital lessons for democratic renewal in our digital age.

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By Beth Simone Noveck, Alisson Bruno Dias De Queiroz,
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Brazil's Federal Senate has pioneered four innovative citizen participation mechanisms that transform ordinary Brazilians from occasional voters into active lawmakers, with over 120,000 legislative ideas submitted and 11 million votes cast. Based on interviews with the head of the Brazilian Senate's e-Citizenship office and a leading expert on legislative innovation in Brazil, this article explores Brazil's current democratic ecosystem and future aspirations for how artificial intelligence could make citizen participation even more impactful.

When an 82-year-old retiree from the coastal city of Maceió called Brazil's Senate hotline to suggest that medication labels needed larger font sizes, he had no idea that a senator from Amazonas would champion his simple suggestion. Across the country, Alessandro from Minas Gerais proposed legislation to prevent internet service providers from throttling speeds for services like Netflix—five years later, his net neutrality idea became reality. These citizens are not anomalies but participants in Brazil's systematic approach to democratic engagement.

> **Imagine a democracy where ordinary people have influenced 46 legislative bills through more than 120,000 submitted ideas and 11 million votes.**

Imagine a democracy where ordinary people have influenced 46 legislative bills through more than 120,000 submitted ideas and 11 million votes.

From a proposal to end housing subsidies for deputies and judges and terminate perks for former presidents to the idea to legalize marijuana and ban straws, the public has had a significant impact on lawmaking.

While none of the resident proposals have become law as is (citizen proposals are only 140 characters), their input has helped to shape the legislative process.

Unlike most nations where citizen participation remains limited to periodic voting or the occasional town hall, Brazil has built four robust, integrated participatory channels that invite citizens into every stage of governance. Through these channels, Brazilians can propose laws, question witnesses, participate in educational workshops to learn how to craft legislation, and vote on pending bills—creating an ecosystem of engagement unseen elsewhere.

> *Unlike most nations where citizen participation remains limited to periodic voting or the occasional town hall, Brazil has built four robust, integrated participatory channels that invite citizens into every stage of governance*

This isn't a theoretical vision—it's Brazil's current reality. In most democracies, the public exercises political power primarily at the ballot box every few years before returning to the sidelines. Brazil's Federal Senate, however, has reimagined this relationship, transforming citizens from occasional voters into active participants in lawmaking.

The system faces challenges—it is time consuming, often duplicative, hard to manage, and produces primarily indirect legislative outcomes. But now Brazil has the opportunity to use artificial intelligence to supercharge this participation and make it more directly relevant. As LinkedIn co-founder Reid Hoffman writes in his new book Superagency: "Instead of thinking of AI first and foremost as a mechanism that could be harnessed for command and control governance, through applications like facial recognition, predictive policing, and algorithmic surveillance, we can choose a future where AI is used to connect citizens more substantively to legislative processes."

The Brazilian Senate's established participatory framework provides the perfect foundation for AI enhancement, allowing Brazil to overcome existing limitations while building on citizen engagement mechanisms already deeply integrated into its democratic institutions.

The Legislative Idea Platform: The People's Proposals

Through the Senate's e-Citizenship website, any Brazilian can propose new laws directly to their Senators. The process, known as the Legislative Idea, launched in 2012 and is remarkably accessible—citizens submit a brief tweet-length proposal with their first name and state of residence. For those who prefer speaking or are less comfortable with technology, a toll-free number connects them with Senate staff who capture and submit their ideas online. Additionally, people who are deaf can submit ideas in sign language by sharing a video with the e-Citizenship team.

The Senate's 15-person e-Citizenship team reviews submissions—over a thousand each month—to ensure they comply with constitutional requirements. Once approved, ideas remain open for public support for four

months. The three most voted-up ideas from the last 24 hours are displayed on the portal's homepage, encouraging public review and participation.

If a proposal collects 20,000 signatures, it is sent to a committee where it can be developed into either a formal bill or a proposal for constitutional amendments. While Senators don't always wait for these thresholds—they can champion promising ideas earlier in the process—the Human Rights and Participatory Legislation Committee plays a key role in transforming qualified proposals into formal legislation. The system has proven remarkably engaging, with over 11 million signatures recorded across various legislative ideas. Recently, a suggestion to "Use the billion-dollar budget approved for electoral campaigns to rebuild Rio Grande do Sul, specifically the areas affected by the biggest environmental and humanitarian disaster in the region" was approaching the 20,000 up-vote threshold.

Challenges and Limitations of the Legislative Idea Process

While the Legislative Idea process has successfully brought citizen voices into Brazil's lawmaking, several challenges remain. Achieving tens of thousands of up-votes is a substantial hurdle, especially since only the most popular proposals appear on the home page. With over a thousand ideas submitted monthly, promising proposals can be overlooked. Additionally, similar ideas often split support across multiple proposals, diluting their impact. Upgrading the Legislative Idea with AI

Generative AI (GenAI), a form of machine learning which recognizes patterns in language, could significantly reduce duplication. GenAI can analyze new submissions against existing ones, flagging overlapping content, allowing Senate staff to automate the process of inviting submitters to join existing proposals before posting their own. This step could reduce fragmentation of support and streamline the review process.

Beyond reducing duplication, AI could also help Senate staff to organize proposals by theme, giving political leaders insight into public concerns

categorized by geography and topic. GoVocal, a citizen engagement company in Belgium and Remesh, another engagement platform from the United States, have both developed clustering algorithms for grouping related ideas that, if used, could facilitate a more holistic approach to addressing public issues. The current system's display of only the three most popular ideas on the front page limits exposure for newer submissions. Iceland's Better Reykjavik platform, developed by the nonprofit technology provider Citizens Foundation, randomizes the display of public submissions to ensure all ideas get public exposure.

Brazil could implement AI-driven rotation that's more sophisticated than simple randomization. Algorithms could prioritize ideas based on engagement metrics and relevance to current events, ensuring that trending proposals are highlighted while giving less popular submissions fair visibility. Such a dynamic system could adjust featured submissions based on community interests, fostering inclusive discourse by highlighting resonant ideas.

One persistent challenge in public consultation is the overwhelming volume of diverse comments that parliamentary officials must process. Brazil needs a system that can categorize feedback based on key themes, sentiments, and

> *One persistent challenge in public consultation is the overwhelming volume of diverse comments that parliamentary officials must process. Brazil needs a system that can categorize feedback based on key themes, sentiments, and patterns, helping to distill complex inputs into concise summaries while ensuring diverse viewpoints aren't lost.*

patterns, helping to distill complex inputs into concise summaries while ensuring diverse viewpoints aren't lost. Fortunately, they can build on promising research in this area. Google DeepMind's recent "Habermas Machine" experiment involving over 5,000 participants demonstrated that AI could effectively synthesize diverse viewpoints into consensus statements that participants found clearer and more representative than those created by human mediators. The system was particularly adept at incorporating minority perspectives rather than simply reflecting majority opinions. By adapting similar technology, Brazil could more effectively integrate the full spectrum of citizen perspectives into the legislative process, making the overwhelming task of processing public input both more manageable and more inclusive.

The Interactive Event: Citizen Participation in Senate Hearings

Unlike in-person attendees who must remain silent in the Senate gallery, Brazilian citizens can actively participate in committee hearings through the e-Citizenship portal or a toll-free hotline. In 2024 alone, the public submitted 69,000 questions across 440 committee hearings. Senators read or responded to 90% of these questions.

EVENTO INTERATIVO
PARTICIPE DOS DEBATES COM PERGUNTAS E COMENTÁRIOS

Audiência Pública

Fiscalização do tempo de descanso de motoristas e a falta de infraestrutura nas rodovias (Lei 13.103/2015)

01/04/25 09:00 | CI

Participe 📃 41

> *In 2024 alone, the public submitted 69,000 questions across 440 committee hearings. Senators read or responded to 90% of these questions.*

The e-Citizenship team selects and relays the most relevant citizen questions to committee chairs. The process has become so integral that Senators now expect these public inputs —as one staff member notes, "If we are late, which is rare, the Senator asks, 'where's the list of questions?' Public comments have become the rule, rather than the exception."

Challenges and Limitations

Despite its success, the Interactive Event faces significant challenges. Processing tens of thousands of questions requires substantial staff resources. Ensuring selected questions are relevant, constructive, and representative of diverse viewpoints requires careful curation. The current manual process may not always capture the most impactful or pertinent questions. Additionally, staff must maintain parliamentary decorum by filtering inappropriate content.

Despite efforts to notify a wide range of potentially interested parties, there's a risk that certain demographics or interest groups may be overrepresented in the question pool, potentially skewing the focus of hearings.

EVENTO INTERATIVO

Mesa-redonda   TV Senado   Agendado   28/03/2025 - 09:00

TV Senado Live debate a declaração do Imposto de Renda

Quem é obrigado a entregar a declaração do Imposto de Renda? O que é a malha fina? Quais mudanças o governo está propondo? A declaração do Imposto de Renda deste ano começou e será tema do TV Senado Live desta sexta-feira (28/3). Especialistas vão tirar dúvidas do público sobre a declaração e explicar a nova proposta de isenção do executivo entregue ao Congresso Nacional. (Release da TV Senado Live)

PERGUNTAS E COMENTÁRIOS (94)

Escreva aqui sua pergunta ou comentário, que deve ter relação com o tema do evento e estar de acordo com nossos termos de uso.

ENVIAR

Imprimir declaração de participação no evento

Upgrading the Interactive Event with AI

AI is already beginning to transform the hearing process. The e-Citizenship team currently uses AI to select the best and most relevant questions from citizens, but the technology offers far more potential. The team is turning to generative AI to write brief summaries of events to help the public understand the topics of congressional hearings.

With text-to-video and audio capabilities, AI could transform written backgrounders into short videos, slide decks, or podcasts, making information more intelligible to those without policy backgrounds. For example, NotebookLM, a free tool from Google, creates podcasts from documents. While currently available only in English, a Portuguese version could generate conversational discussions of upcoming hearings, making complex topics more accessible to average citizens.

Currently, submissions are only accepted in Portuguese. In the future, AI translation could accommodate questions in other languages and handle transcription and organization of voice or video submissions. These content sorting tools would reduce staff workload, route queries to the appropriate committee chairs more efficiently, and ensure diverse topics are addressed during hearings.

For citizens, AI-powered chatbots could help navigate the process of submitting questions, understanding hearing procedures, and accessing information about discussion topics. This would lower barriers to participation, especially for first-time users or those less familiar with legislative processes.

Integrating AI-driven transcription into committee meetings could further enhance efficiency. By transcribing discussions in real-time, AI could compare these transcripts with submitted questions to identify whether certain topics have already been addressed and suggest which citizen the Senator should recognize next. The system could also recommend follow-up questions that logically extend the current discussion, ensuring more coherent and productive dialogue. This would streamline moderation and maintain hearing flow, enabling Senators to focus on relevant and timely queries.

AI could play a critical role in parliamentary committee engagements by moderating citizen interactions during public hearings and consultations. Beyond simply filtering inappropriate content, AI tools could organize citizen questions to ensure the most relevant and constructive issues are addressed while maintaining focused discussion. AI-powered transcription could compare citizen inputs across sessions, preventing repetitive discussions and highlighting unresolved topics. Instead of simple yes/no votes, AI could facilitate online deliberation forums where citizens discuss bills in real-time, with the system analyzing these discussions to provide lawmakers with nuanced insights into public sentiment, concerns, and suggestions.

The e-Citizenship team has already experimented with using AI to generate comprehensive reports summarizing hearings and plans to make this a standard practice. These reports would provide valuable records for both Senators and the public in understanding hearing outcomes and impacts.

Early experiments with immersive virtual worlds have been attempted but haven't persisted due to the expense and distraction of headsets and goggles.

As technology evolves to become more accessible, AI could create virtual environments for hearings, allowing citizens to feel present and engaged when participating remotely. Instead of typing a question and watching on YouTube, participants could experience being in the virtual gallery.

By leveraging these AI-driven enhancements, the Brazilian Senate could significantly improve the efficiency, accessibility, and effectiveness of the Interactive Event process, fostering even greater public participation in the democratic process.

Legislative Workshop: Young Minds Shaping Policy

To train the next generation of citizens, the Brazilian Senate has developed a curriculum for elementary, secondary, and higher education that enables schools and universities to teach young people how to develop legislative ideas under teacher guidance. The e-Citizenship team conducts regular outreach to university leadership to promote youth involvement and foster civic engagement among Brazilian young people.

This investment in civic education has yielded results: 10% of submissions to the legislative ideas site now come from educational institutions, with students having developed two thousand different legislative proposals. In 2023 alone, more than 1,500 teachers registered to conduct Legislative Workshops in a hundred cities across every state in the country.

Ideia de cidadão atendido pela Pestalozzi de Brasília vira projeto de lei

Da Redação | 01/09/2023, 18h52

A oficina legislativa realizada em março na Associação Pestalozzi de Brasília apresentou a ideia encabeçada por Marcelo Siqueira, que recebe atendimento na entidade (de camisa branca e mangas vermelhas)

Divulgação Programa e-Cidadania

Primeira página

A partir das 14h, Plenário analisa participação popular no orçamento

Ao vivo: CCJ debate rigor contra empresas devedoras reincidentes

Ao vivo: CPI das Bets ouvirá psiquiatra sobre vício em apostas

Ao vivo: CI debate tempo de descanso dos caminhoneiros

Ao vivo: CDR debate proposta que financia armazenagem rural

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Últimas

01/04/2025 11h30
Comissão de Educação aprova critérios para isenção da taxa do Enem

Students learn about governance while digging deeply into national problems to develop legislative solutions, which they discuss in the classroom. In universities, this exercise is often integrated into political science or public administration courses, where students learn about the branches of government, institutional jurisdiction, and the lawmaking process before developing ideas to improve legislation.

The program has been inclusive, with workshops conducted in schools for those with intellectual disabilities. One compelling example came from Marcelo Siqueira from the Federal District, who proposed introducing hanging vegetable gardens to promote healthy eating in centers that educate those with disabilities. While the proposal received few up-votes, Senator Paulo Paim of Rio Grande do Sul found merit in the idea and introduced it as legislation. As Senator Paim noted, "Participation in this type of activity has widely recognized benefits in terms of mental health, strengthening community ties and the comprehensive development of children and young people, in addition to contributing to the sense of belonging of the elderly and people with disabilities."

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Challenges and Limitations

Despite its success in engaging young people in the legislative process, the Legislative Workshop program faces several hurdles. The quality and feasibility of student proposals vary widely, requiring significant resources for review and refinement. Ensuring equitable access across diverse school systems remains a challenge, potentially limiting the program's reach. Moreover, maintaining student engagement beyond the workshop and translating enthusiasm into long-term civic participation poses ongoing difficulties.

Upgrading the Legislative Workshop with AI

By incorporating AI technologies, the Legislative Workshop could become even more widespread and impactful, revolutionizing how young people learn about and participate in the legislative process.

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One of the most significant improvements would be personalization. AI could analyze each student's interests, learning style, and progress to create tailored learning paths within the curriculum. This would ensure students remain engaged and challenged regardless of their starting knowledge level. For students with disabilities, AI could provide real-time captioning, text-to-speech, or other assistive technologies to ensure equal participation, making the program truly inclusive.

Beyond individual learning, AI could foster unprecedented collaboration. By registering their initial interests, AI could suggest potential partnerships between students or classes working on similar topics, fostering cross-school collaboration and idea exchange. Classrooms could organize online

discussions around their projects and work on joint proposals, rather than duplicating efforts and overwhelming Senate staff with numerous underdeveloped ideas.

This collaborative approach could extend internationally as the Legislative Workshop concept spreads to other countries. Brazilian students could collaborate with peers from the United States, India, or Nigeria on global issues like climate change or digital privacy rights. AI-powered translation tools would break down language barriers, enabling truly global civic engagement among youth.

To enhance the learning experience, AI could power virtual simulations of the legislative process. Using AI-driven virtual or augmented reality, students could participate in lifelike recreations of parliamentary debates or committee hearings. These simulations could adapt in real-time based on students' decisions, providing a dynamic learning experience that brings the legislative process to life more effectively than textbooks.
AI could also provide instant, constructive feedback on students' legislative proposals, highlighting areas for improvement and suggesting resources for further learning. This would complement teacher guidance and allow for more rapid iteration of ideas, leading to better proposals and a higher likelihood of student ideas becoming actual legislation. The AI could be trained on successful past proposals and current legislative priorities, ensuring relevant and actionable feedback.

Finally, AI could help students navigate the complex ethical considerations inherent in lawmaking. An AI system could prompt students to consider various ethical implications of their proposed legislation, encouraging critical thinking about the broader impacts of laws on diverse populations. This could include simulations of how a proposed law might affect different demographic groups or regions over time, giving students a deeper understanding of the far-reaching consequences of legislation and the importance of thoughtful lawmaking.

The Legislative Workshop program represents a powerful investment in Brazil's democratic future. By engaging young people directly in the legislative process, it not only educates them about governance mechanics but also instills civic responsibility and empowerment. The program's success in generating thousands of student-led proposals, some influencing actual legislation, demonstrates its potential to shape a more engaged and informed citizenry.

As these young participants grow into voting adults, they carry with them not just knowledge of how laws are made, but the confidence and experience that has come from participation and that might blossom into even more active citizenship.

Public Consultation: A Citizen Referendum

The Federal Senate has also created an online system of public consultation that allows citizens to voice their opinions on pending legislation. Over thirty million yes or no "votes" on bills have been recorded over the last decade.

The process, formalized by a 2013 resolution, opens all bills to public scrutiny. The law stipulates that "The Federal Senate website will house a mechanism that allows citizens to express their opinion on any legislative proposal" and that "any citizen, through a single registration with their personal identification

data, may support or reject legislative proposals being processed in the Federal Senate."

This type of non-representative plebiscite provides a snapshot of public opinion rather than an occasion for deliberation. Citizens are not asked to support their votes with data or evidence, and there's no opportunity for debate among those with differing opinions. While limited in its scope, the system at least offers a small way for people to participate in governance.

The aggregated voting results are public, and the E-Citizenship team regularly shares them with parliamentary offices to ensure that citizen voices reach policymakers. To be clear, Senators are not obligated to vote in line with public consultation results. Instead, the system provides lawmakers with a pulse check from among the 15 million registered participants and the 34 million public votes

Challenges and Limitations

While the Public Consultation system has successfully engaged millions, the yes/no voting format can oversimplify complex issues. There's no opportunity to provide data, evidence, or informed opinions, and citizens may vote without understanding proposed legislation. The system also risks influence from coordinated campaigns by interest groups encouraging supporters to vote one way or another. Moreover, the non-binding nature of consultations means politicians can ignore results, potentially causing citizen frustration.

Upgrading Public Consultation with AI

AI and advanced technologies could dramatically improve citizen participation in the lawmaking process, enabling Brazil to enhance its system.
Complex legislative language presents a barrier to participation. AI is already generating easy-to-understand bill summaries. Going further, AI could develop balanced explainers discussing potential impacts, pros, and cons in plain language. AI image generation could make this content more engaging through

infographics or short videos, making legislation accessible to broader audiences.

AI models could simulate potential effects of proposed legislation on different demographics, regions, and sectors. Citizens could interact with these models to understand how a bill might affect them personally, their community, or the country as a whole.

A critical challenge identified by Jigsaw, Google's unit focusing on technology and human rights, is what they call the "last mile problem"—transforming citizen participation into actionable insights for institutions. They have been experimenting with using generative AI to write one-pagers with concrete takeaways about areas of agreement that could inform legislation and points of contention requiring further deliberation. Imagine if Brazil's Senate expanded beyond yes/no votes, using AI to synthesize citizen comments for Senators.

> " *By combining AI–powered analysis with purposeful conversation design, Brazil could create a virtuous cycle where citizen input more directly informs legislative priorities.*

Brazil has an opportunity to redesign public consultation around more targeted questions that would generate directly useful input for lawmakers. By combining AI-powered analysis with purposeful conversation design, Brazil could create a virtuous cycle where citizen input more directly informs legislative priorities.

The e-Citizenship portal already requires registration, though voting remains anonymous. With AI, citizens could register their interests, and the system could match bill content to those interests, notifying people of pending legislation relevant to their concerns or communities. This personalized approach could increase engagement by connecting people with issues that matter to them.

For issues that transcend national boundaries—like climate change, internet governance, or global health—AI could facilitate cross-border citizen deliberation and collaboration. The system could aggregate global opinions, allowing Brazilian citizens to collaborate with counterparts in other countries on shared challenges. This acknowledges that many pressing issues require coordinated transnational responses informed by diverse global perspectives. Through these enhancements, Brazil's already impressive citizen engagement system could become even more deliberative and impactful, setting an example for participatory democracy worldwide.

The Way Forward: Reimagining Democracy for the Digital Age

As we've explored the Federal Senate of Brazil's four innovative mechanisms for online citizen engagement—the Legislative Idea, the Interactive Event, the Legislative Workshop, and Public Consultation—all poised to benefit from the integration of AI to improve their efficiency and effectiveness.

Brazil's model offers valuable lessons for democracies worldwide. In an era where many nations grapple with political polarization, declining trust in institutions, and a lack of political accountability, Brazil's approach provides a roadmap for revitalizing democratic participation.

It shows that with careful design, strong institutional support, and thoughtful integration of technology, it is possible to create more participatory and responsive democratic institutions and foster the kind of informed, engaged citizenry that healthy democracies require.

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Advancing Brazil's Citizen Engagement with AI

Reflections and Opportunities

By Cristiano Ferri

In this essay, the former director of the Hacker Lab in the Brazilian Chamber of Deputies reflects on how artificial intelligence can deepen deliberative democracy in Brazil—and the challenges we still face. Well-designed engagement mechanisms can transform binary yes/no voting into opportunities for nuanced deliberation, make citizen participation more tailored to individual interests, and amplify underrepresented voices. Yet the dream of true digital democracy demands more than technological innovation—it requires systems grounded in human-centered values.

The series of blog posts titled "From Citizen to Senator: Artificial Intelligence and the Reinvention of Citizen Lawmaking in Brazil" by Beth Noveck, Dane Gambrell, Alisson Bruno Dias De Queiroz, and Luis Kimaid offers a comprehensive and inspiring overview of how the Brazilian Senate is leveraging AI to enhance citizen participation in legislative processes.

As someone deeply engaged in digital democracy and legislative innovation, I find their vision both promising and aligned with long-standing aspirations for more inclusive, intelligent, and deliberative policymaking.

In this response, I share a few reflections that build upon the article's insights—adding examples from other branches of Brazil's Congress and past civic tech initiatives.

Beyond Yes or No: The Case for Nuanced Participation

One of the core challenges in today's public consultation systems is the reliance on binary yes/no voting. As the authors rightly note, this format oversimplifies public opinion and limits meaningful engagement.

At the Brazilian Chamber of Deputies, we have already begun to address this. A polling mechanism—designed by the Chamber's Hacker Lab (Labhacker) and

implemented by its IT department—allows citizens to express five levels of opinion, from "strongly agree" to "strongly disagree", and even add arguments for or against proposals.

This system, in place for several years, captures a more detailed picture of public sentiment and sets the stage for AI tools to further analyze and synthesize these varied inputs.

Interest-Based Notifications: A Smart Way to Engage

The article's suggestion to use AI for interest-based notifications is particularly compelling.

" Imagine a system where citizens register their personal interests and receive updates on bills that matter to them

Imagine a system where citizens register their personal interests and receive updates on bills that matter to them. This personalized engagement model can increase participation by making legislation more relatable to everyday life. AI could also help policymakers connect the dots—finding thematic overlaps across different regions or social groups and enabling more targeted, equitable policies.

As the authors propose, extending this to global issues like climate change or internet governance could empower Brazilian citizens to deliberate alongside their international peers.

Virtual Participation: A Doorway to Immersive Democracy

Another exciting idea is using AI to create virtual environments for legislative engagement.

At the Chamber's Hacker Lab (again), we experimented with this back in 2017–2018 through the Virtual 360 Floor project. Using 360° and augmented reality video, we simulated what it would feel like to be inside a legislative session.

> *We must remain vigilant to ensure that participation isn't just symbolic—but actually feeds into the political process in meaningful ways.*

Though limited by political interest at the time, advances in immersive tech may soon bring this vision closer to reality—especially if combined with AI narration and contextualization.

Chatbots as Civic Mentors

The article also highlights the potential for AI to organize and moderate citizen input during public hearings. This echoes a vision I've long held: AI-powered chatbots acting as mentors for civic participation.

Such bots could explain legislative debates, summarize arguments, and invite users to contribute in accessible ways—by voice, text, or visual tools. This would not only lower barriers to entry but improve the clarity and relevance of public input for lawmakers.

Elevating Minority Voices with AI

I was especially struck by the reference to Google DeepMind's "Habermas Machine" experiment, where AI helped synthesize public opinion into consensus statements—amplifying not just majority views but minority perspectives as well.

This speaks to a long-standing concern: how do we ensure that underrepresented or less digitally skilled groups aren't drowned out by louder, more organized voices online?

Here, AI can be a powerful equalizer—giving lawmakers a fuller, more honest picture of what citizens really think.

A Necessary Caveat: Participation ≠ Influence

However, a crucial caveat must be made.

While creating broader, more inclusive maps of public opinion is a wonderful achievement, it doesn't necessarily mean that members of Congress will use that input when making decisions.

We must remain vigilant to ensure that participation isn't just symbolic—but actually feeds into the political process in meaningful ways.

Final Thoughts: The Dream Is Alive

Brazil's Senate e-Cidadania Program is well-positioned to lead the world in combining AI with democratic engagement. But we must draw from innovations across all branches of government—and stay grounded in human-centered values: inclusion, diversity of perspective, and meaningful deliberation. AI, when thoughtfully deployed, can be the bridge that transforms citizen voice into legislative insight.
At least, that is our dream.

Cristiano Ferri *is the former head of the Hacker Lab in the Brazilian Chamber of Deputies. He holds a PhD from Rio de Janeiro State University.*

Transforming democracy from within

A Closer Look at Brazil's Citizen Engagement Initiatives in Parliament

By José Luis Martí

Brazil's Senate stands as a powerful example of how parliaments can use technology to make citizen engagement in lawmaking more accessible and meaningful. But to truly transform democracy from within, these innovations must be guided by clear ends and an understanding that participation is a limited resource. In this essay, Pompeu Fabra University professor José Luis Martí identifies four pillars of democratic innovation that may provide crucial guidance in evaluating actual public initiatives, such as those implemented in Brazil. While transforming our democratic institutions from within is both necessary and urgent, it is not an easy task.

In a time when democracy faces global pressure and institutional innovation is more urgent than ever, one promising path forward involves deep, internal transformation—reforming democratic institutions from within. Among all branches of government, none is more central to this effort than the very place where modern democracy began and where its current crisis is most visible: our parliaments.

In this context, Brazil has emerged over the past decade as a pioneer in promoting citizen participation within its parliamentary processes. It has implemented several innovative initiatives that have not only opened up its legislative system to the public but have also gained international recognition.

A recent series of four excellent posts on the Reboot Democracy blog by Beth Noveck, Dane Gambrell, Allison Bruno Dias de Queiroz, and Luis Kimaid explores these initiatives:

1. The Senate's e-Citizenship platform, allowing citizens to propose legislation directly.
2. The ability for citizens to submit questions to Senate hearings through the same platform.

3. Legislative Workshops in schools and universities across the country.

4. A system of public consultations on all bills under consideration in the Senate.

These posts do a great job of showcasing the strengths of each initiative while highlighting their challenges and limitations. Importantly, they offer suggestions for improvement—many of which center around the integration of AI to make citizen participation more massive, inclusive, meaningful, and collaborative.

Brazil stands as a powerful example that parliamentary innovation doesn't always come from the usual suspects like the UK or Finland. Technological innovation, when thoughtfully applied, can help transform even large and still-developing democracies from the Global South.

That said, as with all public innovation—especially when urgent reforms are needed—we must see these examples as first steps in a long journey. The real question is: how can we take the next, more ambitious steps? How these initiatives might be assessed, and then consequently improved? How can they be extended? And how can these efforts in Brazil inform global learning and experimentation in open government? What counts the most is always the bigger picture.

That's what this series of posts contributes: it offers international visibility to Brazil's democratic innovations, identifies promising avenues for future development, and adds to the growing global dialogue on how AI and digital tools can improve democratic quality and legitimacy.

To build on this, I'd like to offer four complementary considerations that I expose in this two-part essay:

1. The importance of the ends of participation

2. The need for an economy of participation

3. The case for worshipping citizen engagement

4. The centrality of deliberation

These can be viewed as four pillars of democratic innovation that may provide crucial guidance in evaluating actual public initiatives, such as those implemented in Brazil.

I will divide this discussion into two parts, presenting the first two considerations in this initial post and addressing the remaining two in the second.

Part I: The ends of participation and the need for an economy of participation

1. The ends of participation

Our central democratic institutions are partially obsolete, as they were designed in and evolved through a different historical context to face significantly different needs and challenges. But they crystallized over the last two centuries the way they did because they offered a reasonably good balance between effectiveness and legitimacy. Such institutions must now adapt. Deep reform is required. And citizen engagement is surely one of the main ingredients in the new recipe. But, as with any other project of democratic innovation, these initiatives must have clear ends.

We need a clear understanding of why citizen engagement is needed, what problem it aims to solve or reduce, and which exact goals it should pursue. Unfortunately, in the public sector, innovative actions are too frequently taken solely because they are fashionable, or because they will make institutions appear more modern and responsible, even if that is not necessarily the case. We want to make our institutions more open and inclusive, but why? And what do openness and inclusion mean in this context? What do they require?

This triggers the question of what ends are being pursued by parliamentary democratic innovations in Brazil. We should avoid the temptation to treat this as self-evident. Is giving citizens more voice in the legislative process one of these ends? But, if so, why it should be? Is it because we think greater citizen engagement will increase the parliament's and the whole system's legitimacy? Or will it improve the quality of decisions? Or both? In those cases, it is fair to ask: is having the opportunity to send proposals for new legislation limited to only 140 characters, or to address thousands of questions to Senate hearings, the best way to give them voice? The very idea of "the best way" conceptually

implies that we have some previous understanding of the values and ends we are trying to pursue.

In my view, four goals should guide all parliamentary engagement initiatives:

- Rebuilding trust between citizens and parliaments
- Reinforcing democratic legitimacy with an updated 21st-century understanding of democracy
- Improving lawmaking quality, including legislative efficiency, effectiveness, and efficacy
- Fostering civic education, trust, and collective intelligence through collaboration

Actual innovations should be assessed according to these four standards: Are electronic consultations, for instance, that give Brazilian citizens the chance to vote for or against bills under discussion at the Senate, and which clearly don't meet the standards of legitimate referendums, conducive to improvements in any of these four ends? It's hard to see. But if they are, in what way? Could they be improved in order to contribute even more to those ends? What about the other three innovations?

2. The economy of participation

Citizen participation is a scarce resource. Not all citizens possess the kind of civic commitment and motivation that participatory mechanisms require. And even those who do, possess it in different degrees and nevertheless have limited time and energy.

This implies that there is a total, limited amount of participatory energy that institutions may mobilize and manage in a particular period. Such institutions then have the duty to manage this energy responsibly, in an economic way.

The idea of an economy of participation has many implications. Public innovators must ask, for instance, whether the projects they are leading are sustainable over time or will spoil or exhaust resources, whether they waste too much participatory energy, or whether they are mobilizing such energy efficiently.

Here, the point is not so much that we should minimize citizen engagement or make it cheap or too easy. We should definitely facilitate it and make it less

costly, but also, generally speaking, maximize it, if only in those areas where it is really needed, where it might make a real difference.

More importantly, institutions must take such participation into account. There is no worse waste of participatory energy than authorities opening up calls for ideas, proposals, or questions, or processes of consultation, and then ending up ignoring them, piling them up in the last drawer of the darkest corner of the archive.

That in Brazil 46 legislative bills have been influenced by ordinary citizens making proposals sounds positive and is truly remarkable. We don't know how many of the 120,000 ideas submitted, however, were really good and ended up contributing in one way or another to the legislative process, or were just forgotten. That 30 million votes have been cast in the e-consultations in favor or against the bills being discussed in the Senate is an impressive number. What has been the real political impact of those consultations? Did all that energy really contribute to improving the results of the legislative process? These and many other questions emerge from a correct economy of citizen participation.

> *In summary, Brazil's pioneering parliamentary innovations represent a significant step toward revitalizing democracy in the digital age.*

In summary, Brazil's pioneering parliamentary innovations represent a significant step toward revitalizing democracy in the digital age. However, their true value can only be realized when guided by clear objectives and managed with an awareness of participation as a precious resource. The e-Citizenship platform, legislative workshops, and other initiatives must be evaluated not just on their technological innovation or participation numbers, but on how effectively they rebuild trust, enhance democratic legitimacy, improve legislation quality, and foster civic education. Simultaneously, these mechanisms must acknowledge the limits of citizen energy and ensure that every contribution is meaningfully considered rather than merely solicited.

As we look to Brazil's example, the challenge ahead is not simply to create more channels for participation, but to design systems that make each citizen's engagement both economical and impactful—transforming limited participatory resources into meaningful democratic renewal. In the next part, I will focus on the case for cultivating citizen engagement and for giving deliberation the centrality it deserves in contemporary democracy.

Part II: The case for worshipping citizen participation and giving deliberation a more central role in democracy

Brazil's parliamentary democratic innovations in the last decade are landmark in our global pursuit of more open, inclusive, and participatory parliaments. A series of excellent posts on this blog by Beth Noveck, Dane Gambrell, Allison Bruno Dias de Queiroz, and Luis Kimaid have reviewed and assessed four of those initiatives and have proposed strategies for improvement, most of which based on the potential of AI for empowering citizens and make our institutions more open, inclusive and collaborative.

In the first part of this essay, I mentioned four additional considerations that might complement these authors' analysis and presented the first two: the importance of the ends of citizen participation and the need for an economy of participation.

In this second part I will present the other two: the case for worshipping citizen participation and for giving deliberation the central role it deserves in our democracies today.

1. Worshipping or honoring citizen participation

The current democratic crisis is fundamentally based on a lack of public trust in democratic institutions and politicians, a growing emotional and rational gap between citizens and their representatives, and an increasing political apathy or disinterest among citizens.

It's difficult to overstate the importance of these phenomena for the health— that is, the legitimacy—of our democratic systems. No democracy can survive if its citizens don't minimally trust their governments and parliaments. A

parliament cannot be democratic, and therefore legitimate, if it is not representative. And it is not representative if citizens don't perceive it as such. We expect citizen participation to play a decisive role in approaching the four ends mentioned in the first part of this post: rebuilding trust between citizens and parliaments, reinforcing democratic legitimacy, improving lawmaking quality, and fostering civic education, trust, and collective intelligence.

The crucial role of citizen participation in strengthening these four pillars of our democracy, combined with the relative scarcity of participation as a resource (which necessitates a political economy of participation), are the two main reasons why public institutions have the duty to treat citizen participation as sacred and adopt this fundamental mandate: never, under any circumstances, frustrate or disappoint citizens' expectations when you ask them to participate in government.

> " *The best way to honor citizen engagement is to make it truly instrumental to the four goals enumerated above and to manage it efficiently.*

The best way to honor citizen engagement is to make it truly instrumental to the four goals enumerated above and to manage it efficiently. Wasting it, on the contrary, represents a failure in this duty. Given the current crisis of democracy, when public institutions like parliaments create more frustration or mistrust among citizens through their engagement initiatives, they commit a serious error that our precarious democratic systems cannot afford.

While not every expectation a citizen may have should be satisfied—which would be both impossible and undemocratic, since individuals in a democratic community must accept limitations on what they might expect from government—a legitimate expectation is that when citizens are invited to participate, their participation can be meaningful and impactful, and everyone's view should be fairly considered.

This duty to honor citizen participation implies that public institutions should not raise expectations among citizens if they cannot guarantee they will meet such expectations. Authorities should clearly explain to citizens what they can

legitimately expect from these engagement processes. Citizens should receive sufficient relevant information and training about the processes, but also a proper account of what the system did with their contributions and what their real impact has been once processes are completed. They should end up trusting their representatives more than they did before participating.

Do Brazil's four parliamentary democratic innovation initiatives sufficiently honor citizen participation? Do they raise citizens' expectations to a level they can meet? Are they avoiding the creation of more frustration, disappointment, or mistrust? Are we certain they are not counterproductive? Do all questions addressed to Senate hearings receive proper answers? Do citizens receive enough information about what happens with the proposals they submit or the real impact of their votes in e-consultations? Is the Brazilian parliament tracking and measuring the impact of these initiatives on citizens' trust in the institution?

It might be argued that honoring citizen participation properly is too costly for our parliaments and other institutions. But if public institutions cannot guarantee that opening new opportunities for citizen engagement won't create even more frustration and mistrust—if they cannot design and run these processes responsibly and efficiently—they would do better not to change anything.

As Noveck, Gambrell, de Queiroz, and Kimaid show in their posts, AI might prove very helpful in tracking the effects of individual participation and allow institutions to properly account for their actions. This is one area where AI use is becoming fundamental for the health of our democracies.

2. Deliberation as a key

Finally, if we want to strengthen both the legitimacy and effectiveness of our legislation, we need to expand existing opportunities for citizen engagement with a two-fold focus.

First, we should focus on maximizing the quantity of participation—getting more citizens involved, increasing and diversifying their forms of engagement, gathering more contributions, suggestions, questions, and votes. Increasing participation numbers will generally not only lead to greater inclusion and

procedural legitimacy but, under certain conditions, through the "miracle of aggregation," to forms of collective intelligence that will also reinforce substantive legitimacy. This justifies promoting the ideal of crowdsourcing public decision-making, as crowdlaw proponents claim.

But even more important than the quantity of participation is its quality—the second focus. Large amounts of low-quality participation might ultimately be counterproductive for democratic legitimacy. Such participation might not effectively serve the four goals of participation specified in the first post. It might even confirm the worst stereotypes regarding citizen engagement—that people are ignorant or irrational, or that they lack adequate information, skills, or virtues for good governance.

What we need is quality citizen participation that can achieve the highest levels of collective intelligence and improve lawmaking and public decision-making. When public institutions create new opportunities for civic engagement, they have traditionally focused on quantitative aspects while ignoring or downplaying qualitative ones—a serious mistake. In designing and implementing these initiatives, they should embrace both focuses. And when public institutions face a trade-off between quantity and quality of citizen participation, they should prioritize quality.

Public deliberation is key to the quality of citizen participation. Our best normative models of democracy, collective intelligence, and public innovation place democratic deliberation at the center. To the miracle of aggregation, we should add a miracle of deliberation that emerges when participants can discuss among themselves, argue for preferred solutions, and exchange reasons with the aim of convincing others through the force of argument.

We should further add a third level of collective intelligence: the miracle of collaboration—citizens' capacity to learn collectively and cooperate with each other, building upon their participation in deliberative processes. Thus, public deliberation is crucial for maximizing collective intelligence, bridging the quantity of participation and aggregation with the highest state of public collaboration.

The same holds true for our best normative understanding of democracy, provided by deliberative democratic theory, as defended by philosophers such

as John Rawls, Jürgen Habermas, Philip Pettit, and Jane Mansbridge. The ideal democratic system is a deliberative one in which public institutions are internally more deliberative and open to citizens' deliberative input, while simultaneously maintaining a vibrant non-institutional public sphere with flourishing informal public deliberation among citizens.

Are Brazil's initiatives sufficiently deliberative? Are they transforming parliament from within to make it not only more open but also more democratically deliberative? Do they incentivize quality, deliberative, and collaborative citizen participation? Do they foster informal public deliberation in the non-institutional public sphere? These are crucial questions that should be addressed regarding Brazil's parliamentary democratic innovations, both generally and for each specific initiative.

Consider the example of proposals submitted through the e-citizenship platform. Limiting such proposals to 140 characters restricts their deliberative quality. Citizens can barely express a refined idea in 140 characters, let alone argue for it based on reasons. Voting yes or no in e-consultations has little deliberative component either, since it merely aggregates preferences or opinions, many of which might not be sufficiently informed or considered, unless voters connect with a wider public debate on each bill being discussed. Addressing questions to Senate hearings might effectively open committee deliberations to wider audiences, but their deliberative character would be strengthened if the process ensures not only that questions receive meaningful responses, but also that genuine dialogue develops between committee members and the public asking those questions.

Conclusion: Transforming Brazil's parliament from within

In this essay, I have offered four additional considerations that complement Beth Noveck, Dane Gambrell, Allison Bruno Dias de Queiroz, and Luis Kimaid's reviews of Brazil's parliamentary democratic innovation initiatives.

I have presented thoughts that hopefully contribute to a proper assessment of these initiatives. In some cases, I may have questioned certain elements or pointed out weaknesses.

This is not to suggest that Brazil's parliamentary democratic innovations are inadequate or should be abandoned. On the contrary, they should be welcomed and celebrated. Transforming our democratic institutions from within is both necessary and urgent, but not an easy task. We need to innovate and experiment, and we need to learn collectively about how to do it effectively.

It is precisely because Brazil is leading the world in promoting citizen participation and the open parliament concept that it's worth learning more about all their initiatives and discussing them thoroughly—not only to help them take ambitious next steps but also to contribute to global collaborative learning about the best ways to preserve and enhance our democracies.

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