Task Force 05
INCLUSIVE DIGITAL TRANSFORMATION

Digital Public Infrastructure for Electoral Processes, an opportunity to increase trust and enhance democratic governance

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TF05

Abstract

In recent years, several G20 countries have faced significant political unrest fueled by electoral misinformation, a dangerous mix of political polarization and the amplification of false claims about electoral integrity via media and social media. These events underscore the urgent need to combat misinformation and restore public trust in both democratic processes, and the technologies used during an election. This policy brief explores the challenges surrounding the digitization of electoral processes and proposes innovative approaches to solving them through cooperation, openness, and synergies from all sectors, emphasizing shared standards and community involvement. It builds upon the G20 New Delhi Leaders' Declaration commitment to improving access to digital services and digital public infrastructure. The brief is informed by a concrete example through a case study of Argentina, illustrating the difficulties and opportunities at the intersection of elections, data, and digitization. As Brazil, during its G20 presidency, aims to elevate democracy as a cornerstone for addressing global challenges, the brief stresses the opportunity for G20 countries to increase public confidence in electoral processes by adopting a digital public infrastructure stack to enhance electoral integrity globally. This includes developing secure, interoperable systems built on open standards, which can be adapted across jurisdictions, and maintained and improved through international cooperation, taking into consideration a trusted, rights-based, people-centric digitization of the electoral processes.

Keywords: digital public infrastructure, electoral process, digital transformation, disinformation

Understanding a global problem

In recent years, political unrest fueled by electoral misinformation has emerged as a critical challenge in several G20 countries, notably in the United States, Brazil, and Argentina. The U.S. Capitol riots in 2021[1], Brazil's Congress attack in 2022[2], and claims of electoral fraud in Argentina's 2023 elections[3] share a common thread: the dangerous

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[1] The United States Capitol riots on January 6, 2021, were the culmination of a highly contentious 2020's presidential election, exacerbated by deep political polarization and fueled by former President Trump's persistent false claims of voter fraud. Trump's rhetoric at a rally preceding the riots urged his supporters to "fight like hell," contributing to the violent atmosphere. Social media platforms played a significant role in spreading misinformation and organizing the rally.

[2] During 2022 Brazil's close presidential election between Jair Bolsonaro and Luiz Inácio Lula da Silva, misinformation about the integrity of the electronic voting system permeated public discourse. Bolsonaro's defeat triggered an escalation of tensions fueled by false accusations of electoral fraud. The rioters who stormed Brazil's Congress on January 8, one week after Lula da Silva's inauguration, were mobilized in part by misinformation suggesting irregularities and fraud in the ballot box.

[3] During Argentina's 2023 electoral cycle, a disinformation campaign emerged on social media and in some of the main media outlets to sow the idea that an electoral fraud took place in the voting on October 22. This campaign arose after the appearance of some inconsistencies between the provisional scrutiny telegrams and the value loaded into the provisional vote counting system.

mix of political polarization and the role of media outlets and social media in amplifying false claims about election integrity. Many claims questioned the technology used by the electoral authorities and the vendors hired to provide critical components of the electoral process.

These incidents underscore the urgent need for measures to combat misinformation and restore public trust in democratic processes[4]. They also highlight the role Digital Public Infrastructure (DPI) could play in addressing misinformation and the uncertainties around an electoral process at its intersection with digital technologies (Daad and Khan, 2023). In the following section of this policy brief, we discuss how to apply those measures using a successful experience in a Latin American country, Argentina, as an example. The case highlights the importance of the public's understanding and trust of the technical and data layer, elections rely upon.

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[4] A recent study by LAPOP Lab shows among other findings that: (a) Less than half of the population trusts elections in most Latin American and Caribbean countries and (b) Satisfaction with democracy is positively associated with the perception of electoral integrity (Stanic, 2023). Similarly, a Brookings study of some recent public opinion surveys shows a deep erosion of confidence in democracy in the United States. And, it argues, this is largely a consequence of the spread of fake news and disinformation campaigns during electoral processes (Sanchez & Middlemass, 2022).

Standardising electoral data to combat misinformation in elections

Argentina's National Electoral Directorate (DINE) is a technical body specializing in electoral administration. Its responsibility is to implement essential tools to guarantee the electoral process's transparency, security and reliability, thus ensuring the full exercise of political rights and the stability of democracy. One of the fundamental aspects of its work is publishing the provisional results of the national elections. These have no legal validity in determining the elected representatives, but they serve an informative purpose for the citizens.

In 2021, the DINE set out to publish historical data related to provisional national election results in a standardized manner. Until then, this data was in various formats, making it difficult to use quickly and programmatically and not publicly accessible. Ahead of the 2023 electoral process, the DINE launched different tools to facilitate access to these data through various media: an interactive dashboard (to consult the historical data sets already standardized), with the possibility of exporting queries; an API for programmatic data consultation; and the complete disaggregated data (through the national open data portal).

The October 2023 general election results were published with this strategy, 48 hours after polls closed, and only a few hours in the November presidential 2nd round (ballotage).

Thanks to these actions, Argentine civil society and media outlets had access to quality data to debunk social media assumptions and neutralize misinformation. This is not an isolated case, as several countries adopt technologies and techniques to make their electoral processes open, transparent, participatory, and sustainable.

Beyond data standards, a pledge for trusted, open and sustainable digital public infrastructure for electoral processes.

As the Argentinian case illustrates, Democracy and Electoral Integrity can be enhanced with a combination of open, standardised data and open tools to action it. Brazil has pledged to use its presidency of the G20 to elevate democracy as a cornerstone for addressing a range of global challenges, including inequality, poverty, hunger, climate change and the transition to sustainable energy sources. This pledge coincides with President Da Silva's reflections on the January 8, 2023 coup attempt, as reported by the Washington Post. President Da Silva interpreted this incident as the pinnacle of a long campaign by extremist political leaders to undermine democracy for their own benefit. Criticizing Brazil's electoral system - despite its international acclaim for its integrity - these figures mirrored the tactics of U.S. electoral sceptics by casting unfounded calumnies on Brazil's electoral process to delegitimize democracy to cling to power autocratically. This stance highlights Brazil's broader objective during its tenure at the G20: to strengthen democratic principles for addressing and resolving pressing global issues. The 2012 Report of the Global Commission on Elections, Democracy, and Security highlighted that "Integrity depends on public confidence in electoral and political processes. It is not enough to reform institutions; citizens must be convinced that the changes are real and deserve their trust. Inclusion, transparency and accountability are key to developing that trust. Without transparency, citizens cannot know that elections are genuine" (Annan, 2012).

Although the concept of electoral process integrity, applies to a broad set of situations—such as voter registration, electoral campaigns, election administration, and vote counting, among others, here, we focus on a concrete example to illustrate how

advancing projects to improve Digital Public Infrastructures can result in improvements in electoral governance.

Electoral integrity encompasses the idea that elections must meet predetermined criteria to be recognized as democratic. In this sense, an essential aspect of electoral governance lies in managing technical and administrative resources to promote the legitimacy of the democratic act. By facilitating access to data and the transparency of the process that generates it, the space for the political misuse of information amid electoral competition is limited but data alone cannot deliver the electoral integrity needed. Increasingly, governments are relying on technology to mediate each stage of the electoral process and recent initiatives by G20, present in the leaders' declaration of 2023 provide the space to consider a collaborative approach to address shared challenges of the digital dimension of elections: Digital Public Infrastructure to enhance election trust, security and accessibility, committing to collaborate and work together to provide key technical tools to enhance electoral systems everywhere.

Recommendations

As the idea of Digital Public Infrastructure takes off and countries all over the World are signing MOUs to cooperate in sharing systems to address common challenges, such as payments or IDs, this brief proposes that the leaders focus on the electoral process for their future investments in digital public infrastructure for the reasons detailed above. This could considerably impact if done right, the democratic infrastructure and reliability of elections in more than one jurisdiction would have a considerable impact whilst establishing a robust accountability mechanism for the systems that run elections[5]. This

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[5] The discussion about the use of technology in electoral processes is not new (Aldana, 2010). However, the incorporation of technology in electoral processes should not occur indiscriminately or at all stages. For example, the concern about the lack of transparency associated with introducing technology into the electoral process, particularly when it comes to the technology used for casting votes, has led several countries, such as Ireland, the Netherlands, and Germany, to reverse their implementation of electronic voting. The main arguments cited by those who warn against it are the lack of guarantees provided by these new technologies and the potential risks they pose to the security and integrity of elections. For a brief overview of this literature, see Ruiz Nicolini (2019). The call to develop digital public infrastructure for electoral processes must take into account certain risks associated with the use of technology in democratic elections. Beyond these examples, we believe that the connection between the different instances of electoral processes and the development of Public Digital Infrastructures has not been extensively discussed and could result in better democracies, less conflict, and greater legitimization of the processes.

could be done with shared digital systems that are secure, interoperable, and built upon open standards, code, and specifications, resulting in a model DPI for Elections, which would include all the digital blocks that any electoral process needs. The current DPI initiatives should be used to better understand, develop, and share the technologies that democracy needs.

By addressing several key challenges and opportunities at the intersection of elections, data, and digitization, we argue that Digital Public Infrastructure (DPI) can significantly enhance electoral processes in at least five aspects:

a. Transparency.

As per the Argentinian example shared above, adopting open standards for electoral data and making it accessible through an API, this allows multiple actors to verify election results independently, debunking disinformation and providing accurate data to the public. The openness and data standarisation could extend to each stage of the process, from registration to geodata on the voting centers and historical data and metadata of past elections.

b. Security and Integrity.

With the adoption of the DPI Safeguards, the DPI approach for the technology to conduct elections can enhance the security and integrity of elections. By using secure, interoperable systems built on open standards, electoral authorities can prevent fraud and enhance the reliability of election outcomes.

c. Standardization and Best Practices.

Enhancing G20 technical cooperation. Electoral DPIs can ensure consistency and reliability across different electoral systems while offering an open-by-design approach that would enable localzisation. The G20 members could then concentrate efforts in the development of a model DPI for elections that are secure, interoperable, and adaptable to various jurisdictions. This can set a global benchmark for electoral processes, enhancing their credibility and reliability.

Through the process of studying the viability of DPIs to secure a free and fair election, the G20 leaders should include the technical community, Civil Society Organizations, digital activists, journalists and electoral watchdogs to provide feedback and share their experiences in monitoring the digital aspects of an election. With such commitment to openness and participation, electoral authorities will enjoy further credibility and an international endorsement when they succeed. A collaborative space in electoral matters will increase government and citizens' accountability and trust.

As the Argentinian example shows, different electoral authorities have found formulas, coded software, and established good practices to overcome the electoral process and technology difficulties, while many others are still unaware of the complexities of the digital dimension of their electoral processes (Avila, 2018).   Every electoral year, in several countries, considerable investment goes to private providers to support the national government in conducting the digital aspects of an election. Depending on the country, relying on a private actor to run the election triggers different problems, from vendor lock-ins to questioning the vendors' impartiality and integrity.

With targeted investment and coordination by the G20 members, a mechanism could be established to fund and support the general tools, standards and policies that form electoral DPI. Furthermore, the fund could assist in creating a community of practice

around the tools to keep the technical projects accountable and well-audited, as well as secure, bringing to the open source community the much-needed support for the critical digital infrastructures it handles (Sharma, 2023).

The Road Ahead

For a resilient effort towards Electoral Public Digital Infrastructure, with the recommended focus on Electoral DPIs, countries of the G20 could start a multilayered approach to reduce the frictions of digital technologies and data in elections, including but not limited to, the disinformation aspects of it, resulting in shared software, procurement methods, data standards, best practices, policies and open source technical solutions that could adapt to the needs to each electoral system and make it more secure and accountable. By designing, prototyping, deploying, and scaling solutions relying on a trusted digital public infrastructure for elections in a coordinated manner, G20 countries could increase their credibility vis-a-vis citizens and be assisted by a democratic community of practice, with measurable public benefit (Eaves et al. 2024).

While the task is complex, the G20 countries and allies could deliver concrete and immediate results for the subsequent electoral cycles by establishing a working group tackling the difficulties at the intersection of digital technologies and electoral processes. The public benefit of an Electoral DPI could be transformative and pave the way for a different digitalization of electoral systems in most of the World.

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