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Trust in electronic voting machines and electoral integrity: a qualitative analysis of Carioca voters' perceptions

Confiança nas urnas eletrônicas e na integridade eleitoral: uma análise qualitativa das percepções dos cariocas

Confianza en las urnas electrónicas y en la integridad electoral: un análisis cualitativo de las percepciones de los electores cariocas

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Abstract

In recent years, the security of electronic voting machines has become a subject of debate in Brazilian politics. This article examines why voters in Rio de Janeiro trust or distrust electronic voting machines and electoral integrity. We analyze eight focus groups conducted in 2021. The results show that trust in the operation of voting machines can coexist with criticism of other dimensions of the electoral process. Distrust is associated with perceived technological vulnerabilities and reports of fraud, and may persist even without concrete evidence or mechanisms explaining how fraud occurs, sustained by broader perceptions of corruption and institutional distrust.

Keywords: electoral integrity, electronic voting machine, focus groups.

Resumo

Nos últimos anos, a segurança das urnas eletrônicas tornou-se alvo de debate no cenário político brasileiro. Este artigo busca compreender por que eleitores cariocas confiam ou desconfiam das urnas e da integridade das eleições. Para isso, analisamos oito grupos focais realizados em 2021. Os resultados mostram que a confiança no funcionamento das urnas pode coexistir com críticas a outras dimensões do processo eleitoral. A desconfiança aparece associada a vulnerabilidades tecnológicas e notícias sobre fraude e persiste mesmo sem a identificação de evidências ou mecanismos concretos de como ela ocorre, sustentada por percepções mais amplas de corrupção e descrença nas instituições.

Palavras-chave: electoral integrity, electronic voting machine, focus groups.

Resumen

En los últimos años, la seguridad de las urnas electrónicas se ha convertido en objeto de debate en la política brasileña. Este artículo busca comprender por qué los electores cariocas confían o desconfían de las urnas y de la integridad de las elecciones. Analizamos ocho grupos focales realizados en 2021. Los resultados muestran que la confianza en el funcionamiento de las urnas puede coexistir con críticas a otras dimensiones del proceso electoral. La desconfianza se asocia con vulnerabilidades tecnológicas y noticias sobre fraude y puede persistir sin evidencias o mecanismos concretos, sostenida por percepciones amplias de corrupción y desconfianza institucional.

Palabras clave: integridad electoral, urna electrónica, grupos focales.

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1 Introduction

Trust in the electoral process constitutes an important dimension of democratic legitimacy, since the acceptance of the rules, procedures, and results of elections depends, among other factors, on the perception that votes are recorded and counted in a reliable manner (Norris, 2014). In recent years, however, the debate on the security of electronic voting machines in Brazil has gained visibility, driven by former President Jair Bolsonaro. This rhetoric reflects a global trend seen in the crises of contemporary democracies, in which authoritarian-populist leaders question the legitimacy of electoral processes, promote suspicions of fraud, and attack democratic institutions (Eatwell; Goodwin, 2018; Norris; Inglehart, 2019).

We have also witnessed in recent decades a growing wave of contentious elections, characterized by heated debates, legal disputes, mass protests, and opposition boycotts (Norris; Frank; Coma, 2015). Clear examples of this phenomenon include the invasion of the Capitol in the United States, in January 2021, and the invasion of the Three Powers in Brazil, in January 2023, by supporters of Donald Trump and Bolsonaro, respectively. In both cases, the narrative of electoral fraud played a central role in the events. Here, it is important to distinguish, as Stewart (2022) highlights, the objective reliability of the electoral process (trustworthiness) from the confidence that citizens place in this process (trust).

In the context of Rio de Janeiro, a survey revealed that 69.4% of voters have little or no trust in electronic voting machines (Borba, 2022). The literature on electoral trust has advanced mainly through quantitative research, identifying the profile of more or less trusting voters and the relationship of this trust with political preferences and position in the electoral competition (Sances; Stewart, 2015; Borba; Dutt-Ross, 2022; Mello; Jurado, 2026). Other studies analyze the circulation of this type of content on social networks (Gomes; Dourado, 2019; Dourado; Almeida; Piaia, 2024). Such works allow us to understand who tends to distrust elections, under what conditions this distrust manifests itself, and how narratives of fraud are produced and disseminated. It remains less explored, however, why voters distrust the electoral process and what reasons they mobilize to explain this distrust.

In this sense, the present study seeks to analyze the perceptions of voters in Rio de Janeiro regarding the reliability of voting machines and the integrity of elections. For this, we utilized focus groups conducted in 2021 with 62 participants. The analysis of these data remains relevant not only due to the persistence of the theme in the Brazilian debate, but because it allows us to observe how these perceptions were formulated before the 2022 presidential elections and the events of January 8, 2023. The objective, therefore, is not to treat the data as a current portrait of public opinion in Rio de Janeiro, but to understand the justifications that supported trust and distrust in a period prior to the deepening of electoral contestation in the country.

Initially, we discuss the distinction between consensual and contentious elections (Norris; Frank; Coma, 2015; Norris, 2018), situating electoral trust in a broader debate about the acceptance of the rules, procedures, and results of political competition. In the second section, we advance to the discussion on electoral integrity and distrust (Norris; Frank; Coma, 2013; Norris, 2014), seeking to understand more specifically the questions directed at the electoral process and the allegations of fraud. The third section presents the methodology used, while the fourth discusses the results. Finally, the concluding remarks synthesize the main findings.

2 Contentious and consensual elections

Just like the process of democratic consolidation, the expansion of the number of countries that hold regular and competitive elections is not an upward path with no return. Norris and Grömping (2019), who annually measure perceptions of electoral integrity around the world, attest that bad practices continue to undermine disputes, ranging from cases of political violence, disinformation campaigns, and

underrepresentation of minorities. Norris and Inglehart (2019) also highlight that the 2010s were marked by the rise of authoritarian-populist leaders in various parts of the world. In parallel, there was an intensification of contentious elections (Norris; Frank; Coma, 2015).

Contentious elections are characterized by electoral periods that present contestation, with varying degrees of severity, to the legitimacy of the actors, procedures, or electoral results — such as concern about the lack of impartiality, authority, and independence of the electoral management bodies, in addition to disagreements over the voting process and translation of votes into seats (Norris; Frank; Coma, 2015). Legitimacy crises are triggered in states for various reasons, such as corruption scandals and economic crisis.

The phenomenon of a contested election can be detected through several symptoms, including the decline in trust in elections by citizens and elites; mass protests; opposition boycotts or legal challenges; and incidents of political violence occurring throughout the electoral cycle. It is understood that each of these underlying elements of the concept of contentious elections is related, generating a deepening of a crisis of electoral legitimacy (Norris; Frank; Coma, 2015). Furthermore, Norris, Frank, and Coma (2015) warn that a crisis of legitimacy through contentious elections represents another additional risk: elites may seek to govern through undemocratic mechanisms, clientelism, populist and ideological appeals, and, in repressive states, through the threat and use of force.

On the other hand, consensual elections provide mechanisms to resolve disputes in a peaceful, democratic, legal, and orderly manner (Norris, 2018). In this framework, the disputes harmonize the competition between rival visions, leaders, and political parties, ensuring a common agreement on the rules of the game. The legitimacy of the process is not contested. From this angle, Przeworski (2020) conjectures that an institutional order will prevail when political forces receive incentives to pursue their interests through institutions, as well as to tolerate unfavorable outcomes. In this logic, he perceives elections as a method of processing conflicts: "the miracle of democracy is that contending political forces accept the results of the vote" (Przeworski, 2020, p. 84).

The distinction between the quality of the electoral process and the trust placed in it, however, is important to understand the contestation of elections. Stewart (2022) differentiates the trustworthiness of elections, related to the existence of procedures capable of producing reliable results, from electoral trust itself, understood as an evaluation by citizens of the functioning of this process. Thus, an election can possess institutional mechanisms designed to ensure its reliability and, even so, be perceived as unreliable by portions of the electorate. For Stewart (2022), these evaluations are also influenced by the concrete experience of the citizen, by the media, and by the rhetoric of political elites.

3 Electoral distrust and cries of fraud

Regarding electoral fraud, Lehoucq (2003) highlights the diversity of practices that can be understood under this concept, from procedural violations of electoral legislation to actions aimed directly at altering the results of a dispute. For Norris, Frank, and Coma (2013), however, the absence of electoral fraud constitutes only one dimension of the broader concept of electoral integrity, since different aspects of an election can be compromised throughout the entire electoral cycle, including voter registration, campaigns, voting, and vote counting.

However, unlike the actual occurrence of violations of electoral procedures at any stage of the electoral cycle, contentious elections constantly involve unproven allegations regarding the integrity of the process. Norris, Frank, and Coma (2013) point out that accusations of fraud are frequent among the losers of the disputes and can contribute to eroding public trust in electoral results. For Norris (2014), defeated candidates have incentives to question the fairness of elections, especially in tight

races or when they need to justify an unfavorable performance to the electorate. Sances and Stewart (2015), using surveys conducted in the United States between 2000 and 2012, show that voters of the winning candidate consistently exhibit greater confidence that votes were correctly counted than voters of the defeated candidate.

Recent cases of electoral distrust and allegations of fraud in the Americas have been observed in Venezuela, Brazil, Ecuador, Argentina, Peru, and Colombia, frequently associated with the non-acceptance of defeat by candidates (Reis, 2017; O Globo, 2023; Arcanjo, 2026). Another emblematic case was the invasion of the Capitol in the United States in January 2021 by supporters of Donald Trump, who called his voters to protest against the result of the 2020 election under the allegation of fraud in the voting. The president also resorted to the courts to contest the electoral results (G1, 2021). Two years later, in January 2023, supporters of Jair Bolsonaro invaded and vandalized the headquarters of the Three Powers in Brasília, delivering anti-democratic speeches and contesting the result of the 2022 election (Ferreira et al., 2023). It is important to note that Bolsonaro had already made repeated attacks against the electronic voting system used in the country (Folha de S. Paulo, 2021) and declared that he would not recognize a possible electoral defeat (G1, 2018).

In the cases mentioned here, accusations of fraud were central to the mobilization of the electorate. In this sense, Dourado, Almeida, and Piaia (2024) found, through an analysis of posts on Facebook, YouTube, and Twitter during the 2020 municipal elections in Brazil, that publications on electoral contestation are mobilized by politicians and leaders of the radical right. According to the authors, most of the content is based on political opinion, without sources or factual evidence, and of an eminently conspiratorial nature.

Similarly, a study conducted by the Getúlio Vargas Foundation, which analyzed the recent phenomenon of accusations of fraud in voting machines and the demands for auditable printed votes in Brazil, revealed that the volume of posts on the topic on Facebook has remained constant since 2014, with increases at moments when the issue gains prominence on the public agenda. The document highlights that:

In general, popular posts on the subject, in terms of interactions, are those linked to the discourse of non-acceptance of the electoral result, as well as the occurrence of frauds in previous elections and future risks, and not necessarily those related to the technical discussion or criticism, promoted by computer experts and related fields, about transparency, digital security, and electronic voting machines (Ruediger, 2022, p. 21).

During the period analyzed in the report, from November 2020 to January 2022, nearly 400,000 posts mobilizing the theme were found, published across around 27,000 accounts. Of these, 12 accounts have the highest volume of interactions (such as reactions, comments, and shares), mostly profiles of elected representatives. The profiles of federal deputies for the Social Liberal Party (PSL) Carla Zambelli, Bia Kicis, and Filipe Barros, in addition to the profile of former President Jair Bolsonaro himself, are the ones with the highest number of public engagement on their posts (Ruediger, 2022). Gomes and Dourado (2019) also observe that the accounts that propagated fake news about fraud in voting machines are explicitly aligned with the defense of religious conservatism.

Mello and Jurado (2026), using a five-wave panel conducted during the 2022 presidential election, found systematically lower levels of trust in electronic voting machines among voters of Jair Bolsonaro. Borba and Dutt-Ross (2022), in turn, show that distrust in voting machines is greater among younger and less educated voters, as well as among those who trust the statements of Jair Bolsonaro and hold political positions associated with the right. These studies allow the identification of political and sociodemographic characteristics associated with electoral distrust, but they offer fewer elements to understand why voters distrust the electoral process.

4 Methodology

The research adopts a qualitative approach, through focus groups, with the objective of understanding the reasons mobilized by voters to justify their trust or distrust in electronic voting machines and the electoral process. Studies supported by survey data are not designed to cover the justification behind voters' reasoning and may overlook fundamental qualitative aspects to explain reliability in elections. For example, they do not capture how the motivations, values, and emotions of citizens influence their adherence to or rejection of the process. Neither do they reveal expectations and frustrations regarding the functioning of electoral institutions. Qualitative data, on the other hand, allows for exploring these perceptions with more depth and richness of detail. It is necessary to recognize, however, some interference factors, such as the simultaneous cognitive activation of thinking and listening, the fear of social disapproval, and persuasion, although there are techniques used by the moderator to mitigate such limitations (Veiga; Gondim, 2001).

The research was conducted between April 8 and 20, 2021, in the city of Rio de Janeiro. Eight focus groups were held via the Google Meet platform, lasting approximately two hours each and averaging eight participants per group, totaling 62 people. The participants were recruited by a specialized company. The recruitment sought to ensure diversity according to zone of residence (Central, North, South, and West), sex (men and women), and age group (24 to 55 years), following a logic similar to that adopted in opinion polls. This information can be verified in Appendix A. The groups were composed heterogeneously, including in relation to the declared vote in the second round of the 2018 presidential election. The interaction between participants was understood as a constitutive part of the focus group technique, in which convergences, divergences, and mutual influences integrate the very process of forming and expressing opinions (Veiga; Gondim, 2001).

The company responsible for the recruitment did not provide the team with names, contacts, or other personal information, and the participants were instructed to use fictitious names during the sessions. All were previously informed about the objectives of the research, the recording of the sessions, and the use of their speech for research purposes, having verbally expressed their consent for participation and recording, registered at the beginning of the sessions. The recordings were made for subsequent transcription, with restricted access to the research team, and the material used in the analysis was anonymized¹.

The discussion followed a semi-structured script organized into thematic blocks. In the block analyzed in this article, trust in the electoral process, perception of the fairness of elections, and reliability of the electronic voting machine were discussed. The data processing was performed manually, with reference to the qualitative analysis procedure proposed by Yin (2016). After compiling the transcriptions, the material was decomposed from the different arguments and perceptions presented by the participants and, subsequently, recomposed according to recurrences, approximations, and contrasts identified in the speeches. Based on this organization, the data were interpreted and systematized into the categories that guide the presentation of the results.

5 Results

The analysis of the focus groups reveals a complex view regarding electoral integrity and trust in electronic voting machines by Carioca voters. The opinions are marked by the coexistence of a pragmatic trust and a distrust fueled by technological factors and external influences.

Some voters demonstrate trust in the voting machines by emphasizing the speed

¹ At the time the research was conducted, the team understood that the data collection qualified as a public opinion survey with unidentified participants, a situation that, under the terms of CNS Resolution No. 510/2016, is neither registered nor evaluated by the CEP/Conep System.

and efficiency they bring compared to the old paper voting system. For these participants, the machines represent an evolution in the Brazilian electoral process, reducing the counting time and minimizing the margin for direct vote manipulation. These voters see the voting machines as a reflection of modernization, highlighting a positive perspective of the process.

Brazil today is considered in the world one of the best tallies in elections, in terms of security, speed, and counting. So I believe 100% that the electronic voting machine is trustworthy. When the election begins, a *zerésima* is issued, you put it on the door of the polling station, where all parties have access to the number of votes, both at the beginning of the tally and at the end (Man, 46, South Zone).

I think it is something much more reliable than the voting they have in other countries like the United States, which is paper voting and you go there and put everything in a box, then they count it. It is something that has no way to have an error, you go there, put in the number and confirm, or else if it's null, you annul and it's over. There is the confirmation of your vote there, there is the receipt that you went and it's over. I think this is the safest way to vote (Woman, 25, South Zone).

Knowledge about the functioning of the system seems to reinforce this trust.

I believe 100% in the machine's process, it has no link to the internet, it is simply plugged into a socket, no access to any Wi-Fi, it has nothing. People invent things, we see now the President of the Republic trying in any way to change the way of voting, he wants to regress, to walk backwards (Man, 46, South Zone).

As well as having had direct experience working in the process. This result dialogues with the discussion present in Stewart (2022). For the author, the evaluation of elections can be formed from different sources of information, including the voter's own experience with the process. In the focus groups, those who had direct contact with the voting and inspection procedures not only claim to trust the voting machines but justify this trust by resorting to specific mechanisms they observed during their work as poll workers.

I trust it. Usually, I am a poll worker, I see the whole process. If there is fraud there at the time of passing data you have the issue of the *zerésima*, of everything, of the reader that comes all zeroed and we check this, sign... Everything is a very secure process [...] We are even a reference for other countries (Man, 34, West Zone).

In terms of voting machines, of circumventing the votes, I think that's practically impossible. There is a lot of security regarding everything. I've been a poll worker a few times, so you see the security, you see the care that is taken, it's very difficult (Man, 32, North Zone).

I have already worked as a poll worker a few times, when you arrive to vote, you print out what we call the *zerésima*, there is nothing in the machine, and since it has no connection to the phone, the machine we are working with has no way to be manipulated (Woman, 55, Central Zone).

It is important to highlight that trust in voting machines does not prevent voters from criticizing other aspects of the electoral process, such as the translation of votes into seats or access to campaign resources, which are considered unequal. The statements reinforce the importance of not treating trust in the electronic voting machine and perception of electoral integrity as equivalent dimensions. As Norris, Frank, and Coma (2013) argue, electoral integrity covers different stages of the electoral cycle and is not restricted to the absence of fraud. Among the participants, this differentiation appears quite clearly: it is possible to consider the voting technology reliable and, simultaneously, question the fairness of the electoral competition.

Regarding trusting the electoral process, I have no doubts about that without a doubt. I trust it 100%. But the issue of fairness I do not see in the electoral process, if you take an election for state and federal deputy you have no fairness, because the political party can elect a person with a small number of votes, and depending on the political party the person had triple the votes and was not elected (Man, 37, South Zone).

As for the electronic voting machine system, I personally do trust it. But, the candidate running his campaign, that I do not trust, because whoever has money can do more, whoever has money goes to fake news, whoever has money puts the robot WhatsApp. That to me is not cool, that is not legal, so in that part I do not trust, in the part of the politician. But in the voting machine, yes I trust it (Woman, 55, Central Zone).

I think I trust the electoral process in Brazil quite a bit. I think it can be trusted, but I don't think the elections are fair, because you start to segregate by the television time the candidates have, you start to segregate by the amount of money these people have, it becomes an unequal thing, right (Man, 40, South Zone).

Similarly, they highlight the practice of vote-buying as one of the reasons for the lack of integrity in the Brazilian electoral process.

We know the electoral history of Brazil of selling votes, of favors that are exchanged during the campaign, the famous "help me and I help you". The electoral part of the voting machine and vote counting we know is well inspected, it is well monitored, it has no access to any electronic part via 4G or Wi-Fi system, it is not subject to being hacked, let's say. I trust the system, I don't trust the voters and the candidates (Man, 28, Central Zone).

The electronic voting machine is much more trustworthy than the paper vote, I have total confidence in the electronic voting machine, there are indeed these butts, of vote buying (Woman, 45, South Zone).

We also have participants who say they "trust distrustingly", reflecting a broader skepticism regarding the functioning of democracy in Brazil. The perception that "everything can be corrupted" in the country prevails. Among the reasons for this posture, some point to the insecurity inherent in the "digital environment" or attribute the distrust to candidates and politicians, who are presumably corrupt.

It is worth noting that the state of Rio de Janeiro has been marked, in recent years, by successive political crises of great repercussion. Between 2016 and 2020, six governors or former governors were arrested or removed from office amidst investigations and accusations such as embezzlement, administrative impropriety, and electoral crimes. This history forms a particular political-institutional context, in which broader perceptions of corruption and the functioning of institutions can intersect with evaluations of the electoral process.

In continuation, there is the perception that the probability of fraud varies according to the magnitude of the election and the locality, with presidential elections considered less vulnerable compared to local elections, as well as countryside cities being more susceptible to irregularities. Likewise, the lack of transparency in the vote-counting process is frequently mentioned, leading participants to state that they cannot "put their hand in the fire". Despite this, many reveal a difficulty in clearly identifying where or how fraud occurs, reinforcing a feeling of generalized doubt.

It is difficult for you to say in Brazil something that you can trust 100%. [...] I trust the voting machines, the elections, but in a larger magnitude. In the presidential case, for example, I believe there is no fraud (Woman, 34, North Zone).

I trust distrustingly. [...] But since there is always a scam, there is always that Brazilian way that is impressive, terrifying, this Brazilian way, we end up distrusting some things. It is inevitable not to distrust. [...] How fraud could

occur I don't know (Woman, 30, West Zone).

There are many dishonest people, both in the hacker issue, and also if it were paper. There are many people who sell themselves for anything, so it's hard for us to trust, in Brazil there is a lot of fraud in everything (Woman, 47, North Zone).

I think the vote being electronic, the issue of the electronic voting machine, made fraud quite difficult. But as most of the companions there said: I trust distrustingly. I believe that if there is fraud it is not at the first level, it is not at the poll worker level, of the voting booth. There might even be another case, but I think that if there is fraud it occurs in the central computers, in the computing area. But, there is also no way we can guarantee it right, considering that the electronic voting machine came exactly to be able to minimize this issue of fraud (Man, 44, North Zone).

The sources of distrust, on the other hand, present four recurrent justifications: 1) suspicion of technological vulnerabilities; 2) influence of disinformation and fake news; 3) lack of transparency and effective supervision; 4) preference for paper voting.

The perception that digital systems are inherently vulnerable leads part of the voters to doubt the security of the voting machines. Many mention the possibility of manipulation, especially due to the ease of access to data or hacker invasions. This view is supported in comparison with other supposedly secure systems, such as banks and even NASA, which suffer cyber attacks.

What is electronic, virtual, always has a way to defraud. Regardless of the most secure software you can make it will always have flaws, it will always have places where you can circumvent it. For example from time to time someone invades the Pentagon system, the NASA system which are references in regards to this (Man, 25, West Zone).

[...] And from other giant technology companies, they stole the data and such. So it is already shown here [that] the electronic equipment has its vulnerabilities, and our electronic system too. "Ah it's not connected to the internet and such", but that doesn't need to be connected to the internet, that only takes one person from inside to implement a virus that proliferates among them. So much so that there are countries that have technology millions of times ahead of us and do not implement it there (Man, 44, West Zone).

I don't trust the electoral part of Brazil. This internet part, of everything electronic... If a hacker invades NASA, won't they invade a Brazilian thing? So I don't trust any of this (Man, 40, North Zone).

Look, everything that involves computing, internet, is always fragile. [...] The Pix that started now already has fraud, imagine the voting machines that have been around for years (Woman, 45, North Zone).

It stands out that participants also point out supposed reports about frauds disclosed by the media. Furthermore, many admit that news about violations in vote counting and rumors on social networks reinforce distrust. In this way, the disinformation scenario seems to generate a predisposition to skepticism. This result dialogues with Dourado, Almeida, and Piaia (2024), where the circulation of electoral contestation content on social networks is frequently based on opinions and allegations without factual evidence.

There are always indications, some files, reports and everything else that gives indications that there is fraud. [...] In these last presidential elections there was an indication of fraud there in the Northeast with the electronic voting machines there that people are saying is secure. The number of votes was not matching the amount of voters, and there was an indication of fraud to favor a candidate there in the Northeast (Man, 36, Central Zone).

Because I've seen situations of violated voting machines, last year or the year before last, in Colombia, one of the hackers managed to enter the protection system of the Brazilian voting machine, these news are frequent. Everything that is given, is not inviolable, you don't need to be a smart enough person, paper is more difficult (Man, 30, North Zone).

We've already seen several situations about fraud, so it's a thing that we can't know if they do it or don't do it, if there is fraud I don't have, so we are a bit distrustful (Woman, 26, North Zone).

Among these voters who do not trust the voting machines, there is a widespread perception that the inspection by competent bodies is insufficient, lacking rigor, impartiality, and transparency. Many express the feeling that the system is not clear enough about how votes are processed, which feeds the belief that results could be manipulated. For many, the idea of the existence of fraud seems an almost intuitive conviction, supported more by a feeling of generalized distrust than by concrete evidence or detailed justifications.

It is very relative, understand? I think there is fraud. Even though the organizers, the Superior Court, even though they try to do the service right, wanting Brazil to be an upright country, even so in my conception there is still fraud (Woman, 39, West Zone).

I think it really works, but unfortunately in their midst there are corrupt people too right. A person can offer a value and he can even let it pass unnoticed. If they were really all there 100% correct, honest, I think it would work (Man, 39, North Zone).

I don't think they don't inspect, I think there are people who really are there on purpose. I always try to put it in everyone's reality, my reality as a teacher I know that there are teachers who go there and will give the best class, just as I know that there are teachers who go there to do the minimum, and there are teachers who won't even do the minimum. That's not just in my profession, that's in everything. At the [TSE] we are going to have people like that who will give their blood, just as there are people who will be there for attendance and not for work (Man, 25, North Zone).

Any machine today can be circumvented, I don't know if you here have already had this sensation... from time to time you go to refuel a car, simply due to the fact that the fuel hose is black you are left with the sensation: "did fuel really start coming out at the right time?". It's the same sensation with the voting machine, "is the vote really being carried forward? Is it going to the right person?". It is a very much in the dark thing (Man, 30, West Zone).

Paper voting appears as an alternative that symbolizes more integrity and security. For these voters, paper, despite being time-consuming, confers a manual control and is less subject to manipulations.

The elections took forever, the voting machines advanced a lot, however I do not think it is safe. [...] Paper voting could take a week, but it would be counted vote by vote (Man, 39, North Zone).

I think it's a chip, if I'm not mistaken, change the chip, bam boom. I think it's not safe because of that. I would prefer paper, write and put it in the little box there (Man, 30, West Zone).

I particularly don't trust this electronic voting machine much, I am still in favor of the old vote, urn and paper. [...] The electronic voting machine I believe there are several ways to change that there, that system. Another thing, I think that in Brazil there is the electronic voting machine... and if it were so correct why wouldn't the other countries already be too? Don't they use it too? In Brazil being an electronic voting machine or not there is always a lot of corruption, I will always distrust, both being electronic and being manual. Still, I think the electronic voting machine was a way to have more chance to change the result.

I do not trust it (Man, 41, Central Zone).

Finally, the territorial distribution of the groups allows observing, in an exploratory way, some differences in the emphasis attributed to these arguments. In the groups of the North Zone, references to technological vulnerability, inspection, and paper voting frequently appeared, while in the groups of the South Zone arguments associated with the speed and modernization provided by the voting machines were more recurrent, albeit accompanied by concerns about digital security. In the groups of the West Zone, trust and distrust appeared in a more combined manner, frequently accompanied by demands for greater transparency. These differences, however, should not be interpreted as territorial patterns of Carioca public opinion, given the limitations of the research design.

6 Concluding remarks

In recent years, the security of electronic voting machines in Brazil has become a subject of debate, influenced by former President Jair Bolsonaro, which reflected a global trend of authoritarian-populist leaders who question electoral legitimacy (Eatwell; Goodwin, 2018; Norris; Inglehart, 2019). The phenomenon, constantly associated with the emergence of new political-ideological currents of the right (Gomes; Dourado, 2019) and intrinsically linked to mobilization via social networks (Dourado; Almeida; Piaia, 2024), lacks a qualitative look at the reasons that drive trust or distrust in the electoral process. In view of this, this study sought to fill this gap using focus groups conducted in April 2021, with 62 Carioca voters.

The results show, first of all, that electoral trust does not appear as a single evaluation. Some of the participants demonstrate high trust in the technical functioning of the voting machines, especially due to the speed of the tallying, the knowledge about the voting procedures, and the direct experience as poll workers. At the same time, this trust can coexist with negative evaluations regarding other dimensions of the electoral process, such as inequality between candidates or vote buying. This distinction reinforces the importance of not treating trust in the electronic voting machine and the perception of electoral integrity as equivalent dimensions, since the latter involves different stages and aspects of electoral competition (Norris; Frank; Coma, 2013).

Among the participants who express distrust, the justifications are also diverse. Doubts appear regarding the vulnerability of electronic systems, references to news and rumors about supposed frauds, questions about the transparency and inspection of the process, and the preference for paper voting. In other cases, however, distrust is not associated with a specific mechanism of fraud, but with a broader perception that institutions, technologies, and political actors can be corrupted. The recurrence of the expression "in Brazil everything is corruptible" and "it is necessary to trust distrustingly" reveal this pattern: some participants recognize the security mechanisms of the voting machines, but even so preserve a diffuse suspicion regarding the possibility of manipulation. This view may be related to a broader dissatisfaction with political institutions and with the functioning of democracy in the country.

The interviewees' references to news, reports, and rumors about fraud also bring the results closer to studies that show the wide circulation of electoral contestation content on Brazilian social networks (Ruediger, 2022; Dourado; Almeida; Piaia, 2024). The data analyzed here, however, allow observing another aspect of this process: how this information appears incorporated into the justifications of the voters themselves when they are invited to explain their trust or distrust. This does not allow us to affirm that exposure to these contents causally produces distrust, but it shows that these narratives are part of the repertoire used by some participants to interpret the reliability of the elections.

The conduction of the focus groups in 2021 constitutes, at the same time, a limitation and an analytically relevant characteristic of the research. The data do not

allow representing the opinion of Carioca voters in the present nor evaluating the changes caused by the 2022 presidential elections and subsequent events. On the other hand, they allow observing that arguments related to technological vulnerability, the possibility of fraud, the lack of transparency, and the printed vote were already part of the voters' perceptions before the intensification of the electoral contestation rhetoric in 2022 and 2023.

More than establishing the determinants of electoral trust, therefore, the results help to understand the meanings attributed by citizens to trust and distrust. While quantitative research has shown who tends to distrust elections and under what conditions this distrust manifests itself, focus groups allow advancing in the understanding of why voters distrust, identifying the reasons, perceptions, and experiences associated with this evaluation.

References

ARCANJO, Daniela. **Questionar eleições vira regra de direita a esquerda na América Latina**. Folha de S.Paulo. 20 jul. 2026. Available at: <https://www1.folha.uol.com.br/mundo/2026/07/questionar-eleicoes-vira-regra-de-direita-esquerda-na-america-latina.shtml>. Accessed in: 14 Sep. 2026.

BORBA, Felipe. Integridade eleitoral no Rio de Janeiro: compra de voto e confiança na urna eletrônica. In: BORBA, Felipe; FIGUEIREDO, Argelina Cheibub (Ed.). **Política local no estado do Rio de Janeiro: disputa partidária e comportamento político nas eleições municipais de 2020**. Rio de Janeiro: EdUERJ, 2022. P. 123–142.

BORBA, Felipe; DUTT-ROSS, Steven. Quem (não) confia nas urnas eletrônicas? **Insight Inteligência**, n. 96, mar. 2022. Available at: <https://insightinteligencia.com.br/quem-nao-confia-nas-urnas-eletronicas/>. Accessed in: 10 Oct. 2025.

DOURADO, Tatiana; ALMEIDA, Sabrina; PIAIA, Victor. Fraude nas urnas e contestação eleitoral no Brasil: análise multiplataforma de atores políticos, viés conspiratório e moderação de conteúdo. **Opinião Pública**, v. 30, e3017, 2024. DOI: 10.1590/1807-019120243017.

EATWELL, Roger; GOODWIN, Matthew. **National populism: a revolt against liberal democracy**. London: Pelican Books, 2018.

FERREIRA, Afonso *et al.* **Terroristas bolsonaristas invadem Congresso Nacional, Palácio do Planalto e STF, em Brasília**. Globo. 8 jan. 2023. Available at: <https://g1.globo.com/df/distrito-federal/noticia/2023/01/08/bolsonaristas-radicais-entraram-confronto-com-a-policia-na-esplanada-e-sobem-rampa-do-congresso-nacional-em-brasilia.ghtml>. Accessed in: 14 Jan. 2025.

FOLHA DE S. PAULO. **Relembre alguns ataques de Bolsonaro ao sistema eleitoral sem apresentar provas**. Folha de S. Paulo. 8 jan. 2021. Available at: <https://www1.folha.uol.com.br/poder/2021/01/veja-o-que-bolsonaro-ja-disse-sobre-nas-eletronicas-e-fraude-em-eleicao-sem-apresentar-provas.shtml>. Accessed in: 14 Jan. 2025.

G1. **Bolsonaro diz: “não aceito resultado das eleições diferente da minha eleição”**. Globo. 28 set. 2018. Available at: <https://g1.globo.com/sp/sao-paulo/eleicoes/2018/noticia/2018/09/28/bolsonaro-diz-que-nao-aceitara-resultado-diferente-do-que-seja-a-minha-eleicao.ghtml>. Accessed in: 14 Jan. 2025.

G1. **Veja a cronologia da invasão do Congresso dos Estados Unidos por apoiadores de Trump**. Globo. 6 jan. 2021. Available at: <https://g1.globo.com/mundo/noticia/2021/01/06/veja-a-cronologia-da-invasao-do-congresso-dos-estados-unidos-por-apoiadores-de-trump.ghtml>. Accessed in: 31 May 2021.

- GOMES, Wilson da Silva; DOURADO, Tatiana. Fake news, um fenômeno de comunicação política entre jornalismo, política e democracia. **Estudos em Jornalismo e Mídia**, v. 16, n. 2, p. 33–45, 2019. DOI: 10.5007/1984-6924.2019v16n2p33.
- LEHOUCQ, Fabrice. Electoral fraud: causes, types, and consequences. **Annual Review of Political Science**, v. 6, p. 233–256, 2003. DOI: 10.1146/annurev.polisci.6.121901.085655.
- MELLO, Fernando; JURADO, Ignacio. Following the leader against democracy? Evidence from the 2022 Brazilian presidential election. **Politics and Governance**, v. 14, 11547, 22 abr. 2026. DOI: 10.17645/pag.11547.
- NORRIS, Pippa. Electoral integrity. In: FISHER, Justin *et al.* (Ed.). **The Routledge handbook of elections, voting behavior and public opinion**. New York: Routledge, 2018.
- NORRIS, Pippa. **Why electoral integrity matters**. Cambridge: Cambridge University Press, 2014.
- NORRIS, Pippa; FRANK, Richard W.; COMA, Ferran M. I. Assessing the quality of elections. **Journal of Democracy**, v. 24, n. 4, p. 124–135, 2013. DOI: 10.1353/jod.2013.0063.
- NORRIS, Pippa; FRANK, Richard W.; COMA, Ferran M. I. **Contentious elections: from ballots to barricades**. New York: Routledge, 2015.
- NORRIS, Pippa; GRÖMPING, Max. **Electoral Integrity Report 2019: The Electoral Integrity Project**. Kingston: Department of Political Science and Economics, Royal Military College of Canada, 2019. Available at: <https://www.electoralintegrityproject.com/the-year-in-elections-2019>. Accessed in: 14 Jan. 2025.
- NORRIS, Pippa; INGLEHART, Ronald. **Cultural backlash: Trump, Brexit and authoritarian populism**. Cambridge: Cambridge University Press, 2019.
- O GLOBO. **Repetindo Trump e Bolsonaro, campanha de Milei alega fraude sem provas antes da eleição na Argentina**. Globo. Dez. 2023. Available at: <https://oglobo.globo.com/mundo/noticia/2023/11/16/repetindo-trump-e-bolsonaro-campanha-de-milei-denuncia-fraude-colossal-dias-antes-das-eleicoes-na-argentina.ghtml>. Accessed in: 14 Jan. 2025.
- PRZEWORSKI, Adam. **Crises da democracia**. Rio de Janeiro: Zahar, 2020.
- REIS, Guilherme Simões. O fim da era das democracias na América. **Breviário de Filosofia Pública**, n. 146, p. 32–47, abr. 2017.
- RUEDIGER, Marco Aurélio. (Coord.) **Desinformação on-line e contestação das eleições: quinze meses de postagens sobre fraude nas urnas eletrônicas e voto impresso auditável no Facebook**. Rio de Janeiro: FGV DAPP, 2022. Policy paper. Available at: <https://repositorio.fgv.br/server/api/core/bitstreams/1eb3e357-e011-4315-9fcc063691b6eb85/content>. Accessed in: 14 Jan. 2025.
- SANCES, Michael W.; STEWART, Charles. Partisanship and confidence in the vote count: evidence from U.S. national elections since 2000. **Electoral Studies**, v. 40, p. 176–188, dez. 2015. DOI: 10.1016/j.electstud.2015.08.004.
- STEWART, Charles. Trust in elections. **Daedalus**, v. 151, n. 4, p. 234–253, 2022. DOI: 10.1162/daed_a_01953.
- VEIGA, Luciana Fernandes; GONDIM, Sônia Maria Guedes. A utilização de métodos qualitativos na Ciência Política e no Marketing Político. **Opinião Pública**, v. 7, n. 1, p. 1–15, 2001. DOI: 10.1590/S0104-62762001000100001.
- YIN, Robert K. **Pesquisa qualitativa do início ao fim**. Porto Alegre: Penso, 2016.

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Conceptualization, T.E.; methodology, T.E.; investigation, T.E.; data curation, T.E.; writing - original draft preparation, T.E.; writing - review and editing, T.E., F.M.; resources, F.M.; supervision, F.M.; funding acquisition, F.M. All authors have read and agreed to the published version of the manuscript.

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Informed Consent

All participants were previously informed about the objectives of the research, the recording of the sessions, and the use of their speech for research purposes, having verbally expressed their consent for participation and recording, registered at the beginning of the sessions.

Data Availability

The raw data of this research are not publicly available, due to the confidentiality and anonymization commitments adopted in the research.

Conflicts of Interest

The author declares no conflict of interest.

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Coleção Estudos Cariocas (ISSN 1984-7203) is a publication dedicated to studies and research on the Municipality of Rio de Janeiro, affiliated with the Pereira Passos Institute (IPP) of the Rio de Janeiro City Hall.

Its objective is to disseminate technical and scientific production on topics related to the city of Rio de Janeiro, as well as its metropolitan connections and its role in regional, national, and international contexts. The collection is open to all researchers (whether municipal employees or not) and covers a wide range of fields — provided they partially or fully address the spatial scope of the city of Rio de Janeiro.

Articles must also align with the Institute's objectives, which are:

1. to promote and coordinate public intervention in the city's urban space;
2. to provide and integrate the activities of the city's geographic, cartographic, monographic, and statistical information systems;
3. to support the establishment of basic guidelines for the city's socioeconomic development.

Special emphasis will be given to the articulation of the articles with the city's economic development proposal. Thus, it is expected that the multidisciplinary articles submitted to the journal will address the urban development needs of Rio de Janeiro.