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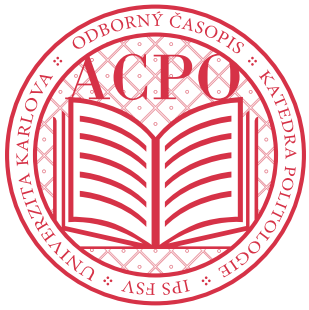

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Katedra politologie Institutu politologických studií
Fakulta sociálních věd Univerzity Karlovy

Department of Political Science, Institute of Political Studies
Faculty of Social Sciences, Charles University

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Digital Tools, Democratic Affordances and Participation in a Networked Party: the Czech Pirate Party

Tomáš Martínek, Michal Malý[1]

Abstract:

The article explores the Czech Pirate Party (CPP), identified as a networked party that utilizes digital participatory tools. The study analyzes how software design and usage norms influence the quality and extent of member participation. The CPP serves as a relevant case study due to its early adoption of digital tools for internal deliberation and voting, as well as its transition from a parliamentary party in 2017 to a governing party in 2021. The research findings indicate that, despite the inclusive nature of the party's participatory processes, voter turnout remains relatively low. This suggests that inclusivity alone may not be sufficient to increase participation rates. The study also highlights that exclusive membership, involving a more selective process for admitting new members, may contribute to stable participation, though it can also limit the expansion of the party's membership base. The findings provide insights that may be valuable for further research on digital parties and their internal democratic processes, illustrating how digital platforms can influence member engagement in decision-making.

Key words*: Pirate Party; Network Party; Digital Party; Intra-party Voting; Deliberation; Digital Democratic Affordance; Participation Platforms*

Introduction

With the advent of the internet, there has been a gradual transformation in the operation, communication and organization of political institutions, especially with the emergence of social networks (Raniolo, Tarditi 2020). This digital revolution has also affected political parties and their organizational and expert structures. Since the beginning of the millennium, it has become commonplace for political parties to utilize ICT (Information and Communication Technology), specifically in the form of websites, internet forums, and campaign tools (Janssen, Kies 2005; Norris 2001; Pedersen, Saglie 2005). Initially, member activity on these

[1] Tomáš Martínek, Ph.D. Student, Department of Information Engineering, Faculty of Economics and Management, Czech University of Life Sciences Prague, Czech Republic. Contact: martinekt@pef.czu.cz. ResearcherID: GVU-6458-2022. ORCID: https://orcid.org/0000-0002-4295-0886.
Michal Malý, Ph.D. Student, Institute of Political Studies, Faculty of Social Sciences, Charles University, Czech Republic. Contact: michal.maly@fsv.cuni.cz. ResearcherID: GXF-9941-2022. ORCID: https://orcid.org/0000-0002-4782-2672.
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websites was rather passive, and the parties focused more on online election campaigns (Gibson, Ward 2009).

With the development of social networks, parties had to start adapting to this „digital ecosystem," both in terms of human capacity and digital infrastructure (Dommett et al. 2021), which also involves reallocating party financial resources (Fitzpatrick, Thuermer 2023). In connection with the need for parties to adapt to the digital environment, discussions began about the so-called fourth face of political parties (Katz, Mair 1993; Peña, Gold 2022).

ICT tools bring new possibilities for political parties to interact with their membership base and try to address some of the trends associated with the crisis of political parties, such as the decline in membership base and member mobilization (Dalton, Wattenberg 2002; Van Biezen, Poguntke 2014). New forms of cyber-membership and participatory platforms offer genuine opportunities to empower party (and potential new) members and allow them to actively participate in internal party decision-making (Scarrow 2015). This cyber-optimistic vision (Barberá et al. 2021) faces challenges, particularly from the existing membership base and owing to a lack of digital infrastructure, including intra-party training on digital adaptation (Lioy et al. 2019; Musella 2023; Raniolo, Tarditi 2020).

The development of ICT has led to the emergence of parties whose internal processes and communication are based on digital participatory tools that draw from the logic of corporate entities (Gerbaudo 2019). These parties have been described in various ways as cyber-parties (Margetts 2006), anti-elitist cyber-parties (Hartleb 2013), connective parties (Bennett et al. 2018), and digital parties (Gerbaudo 2019, 2021). Deseriis (2020a) in his essay differentiates digital parties into platform and network, with platforms characterized as centralized and networks as decentralized. Current research has primarily focused on platform parties, specifically the Five Star Movement (Italy) and Podemos (Spain), which are characterized as centralized, using participatory platforms for plebiscitary legitimization of party leadership, without allowing the membership base to actively propose initiatives to be voted upon (Deseriis, Vittori 2019; Gerbaudo 2021; de Nadal 2021; Vittori 2020). Research on network parties is not yet extensive (exceptions include Deseriis 2022 and 2023b; Voda, Vodová 2020).

This article examines the Czech Pirate Party (CPP), identified by Deseriis (2020a) as a network party. As an early adopter of digital participatory tools for deliberation and voting, the CPP serves as a compelling case for studying digital parties. Its evolution from a parliamentary party in 2017 to a governing party in 2021 further underscores its significance for research. A detailed case study of the CPP provides valuable insights into the operation of participatory and voting platforms, offering broader implications for the study of network parties. This paper expands upon Deseriis' framework of digital democratic affordances by analyzing the impact of software design and usage norms on the quality and scale of participation over time, addressing the limitations of his static and normative approach, which primarily focuses on agenda-setting rather than the dynamic evolution of actual participation and deliberation, and examining whether these factors contribute to stable participation and active member engagement (Deseriis 2023a; Vittori 2019). Therefore, we pose the following research question: What factors in software design and norms of use on digital democratic platforms influence participation in the CPP?

The article will be organized as follows: After the introduction, we first discuss the current state of research on digital parties, followed by a literature review on network parties. This is followed by a section on case selection and description, methodology, and data

used. In the empirical section, we analyze software design, norms of use, and participation, which is followed by a discussion of the findings. The article concludes with a comparison of our results with existing research on digital parties.

Theoretical Framework

Digital Parties and Participatory Platforms

Since the 2000s, with the expansion of the internet, there has been a growing body of research examining its impact on political parties, particularly in terms of communication and organization (Castells 2001). In recent years, this literature has increasingly focused on the influence of digital technologies on organizational processes, leading to the identification of a potential new type of political party: the digital party (for an overview, see Barberà et al., 2021). The first mention of the term „digital party" is found in Norris's study (2001), which, however, focused more on global parties and their websites, without addressing deeper organizational elements.

Margetts (2006) expanded this discussion by introducing the concept of the „cyber party," which she described as a potential future type of political party. Cyber parties use web-based technologies to engage voters, offering more flexible and direct interactions compared to traditional parties. While this digital shift enabled innovative campaign strategies and cost-effective engagement, it also brought challenges such as social exclusion (due to unequal access to technology) and the risk of superficial involvement.

With the emergence of new parties such as the Pirate Parties and the Five Star Movement (FSM), the need for new conceptualizations of cyber parties became evident. Hartleb (2013) categorized these into two main types: strictly authoritarian and participatory cyber parties. Strictly authoritarian cyber parties are marked by centralized control, where leadership tightly manages decision-making processes and limits broader member involvement. On the other hand, participatory cyber parties, like the Pirate Party, emphasize member engagement through digital platforms, promoting transparency and decentralized decision-making, as seen in the „liquid democracy" model.

Building on these ideas, Bennett and his colleagues (2018) introduced the concept of „connected parties," which rely heavily on digital technologies to create a network of supporters and replace traditional party structures and functions. Their study included cases such as the Danish Alternativet, Icelandic Píratar, and Spanish Podemos, highlighting how these parties integrate technology into their core operations.

Klimowicz (2018) further contributed to this discourse by developing the concept of „network parties." These parties are characterized by horizontal, decentralized structures and the use of open-source software for communication, decision-making, and public engagement. Network parties emphasize transparency, ethical behavior, and participatory democracy, often employing digital tools for crowdsourced decision-making and policy development. Examples such as Spain's Podemos and Barcelona en Comú, Poland's Partia Razem, and Iceland's Píratar illustrate how these parties challenge traditional political models and promote citizen involvement in governance.

In more recent research, digital parties have been empirically tested, particularly regarding participation within digital party platforms. Gerbaudo (2018) offered a nuanced conceptualization of the digital party, focusing not just on the implementation of digital

technologies, but on their role in promoting internal party democratization. He argued that digital technologies should help transcend the crisis of representative politics by offering citizens more active participation in public affairs. However, Gerbaudo's analysis of FSM and Podemos showed that despite their participatory platforms, party leadership often maintains control, thereby limiting member engagement. The participation process in these cases is often plebiscitary, with members only responding to proposals put forward by the leadership.

Deseriis and Vittori (2019) also examined participatory processes within the platforms of FSM and Podemos, criticizing the static measurements often used in the analysis of intra-party democracy (IPD). Their study, focusing on the technical design of platforms, norms of use, and actual participation over time, confirmed Gerbaudo's findings. They observed that both FSM and Podemos struggle with maintaining stable turnout and active discussions, and neither party has shown significant interest in redesigning their platforms to encourage greater and more stable participation.

Further studies (Deseriis, 2020a, 2021; Mosca, 2020; Vittori 2019), highlight the need to include the technical setup of platforms and the rules governing their use in analyses. These works emphasize that the democratic vision of digital parties and its fulfillment depend significantly on the design and functioning of these platforms over time.

Networked party

Although it might seem that digital parties have failed in their goal to re-engage people with politics and participation, current studies only cover one side of the coin. Building on Hartleb's earlier work, Deseriis (2020b) postulated the existence of two ideal-type digital party models: the platform party and the network party. The platform party represents a centralized organization led by a charismatic hyper-leader. This type of party corresponds to the previous analysis results of FSM and Podemos, indicating that platforms are controlled by the party's central office and that their participatory outcomes are plebiscitary in nature (De Blasio, Sorice 2020; Gerbaudo 2018 and 2021; Deseriis, Vittori 2019). In contrast, the network party represents the cyber-optimistic version of a digitally decentralized party. Deseriis (2020b) characterizes the network party using seven features, which he contrasts with the platform party: non-exclusive membership, decentralization, leadership function, bottom-up division of labor, collective agenda-setting, hybrid participation, and scalable deliberation.

First, non-exclusive membership allows members to belong to other parties or civil society organizations, fostering broader collaboration. Second, decentralization ensures that decision-making is not centralized in the party headquarters but occurs at various organizational levels, often locally or regionally. Third, the leadership function is distributed among individuals based on their expertise and contributions, reducing dependence on a single charismatic leader. Fourth, tasks and responsibilities are divided from the bottom up, with members deciding who takes on certain roles based on their skills and input. Fifth, collective agenda-setting involves members actively participating in shaping the party's program through discussions and voting at different organizational levels. Sixth, hybrid participation combines online and offline methods, allowing members to engage in discussions and decision-making both in physical meetings and through online platforms, ensuring broader member involvement. Finally, scalable deliberation is designed to facilitate effective decision-making even with a large number of members, utilizing sophisticated online platforms for voting and discussion (Deseriis 2020b). Deseriis provides several examples of network

parties. These include the Pirate Parties in countries such as Sweden, Germany, Iceland, and the Czech Republic. Additionally, he mentions Barcelona en Comú and the X Party in Spain. De Blasio and Viviani identify the fundamental difference between platform and network parties as the functioning and role of participation within these parties. Specifically, they highlight the distinction between plebiscitarian participation in platform parties and collective agenda-setting in network parties (De Blasio, Viviani 2020).

Digital Democratic Affordance in Participation Platforms

In his work, Deseriis (2023a) develops a theoretical framework for digital democratic affordances (DDA) on participatory platforms, aimed at analyzing how these platforms contribute to democratic processes. These platforms are categorized into two types: instrumental and emergent. While instrumental platforms are integrated into existing governance systems and operate within traditional modes of governance, emergent platforms seek to transcend these established structures and develop new forms of democratic participation. Deseriis' concept responds to existing taxonomies, which have inadequately considered the influence of software design on the quality and democratic nature of participation (Dahlberg 2011).

Deseriis identifies four key dimensions of DDA: software design, usage norms, scope of participation, and quality of participation. Software design refers to the architectural configuration of the decision-making software and platforms, which include specific features and their relation to democratic processes. For instance, the integration of online voting into deliberative platforms can affect how democratic processes are perceived and regulated (Deseriis 2023a: 16). Usage norms determine how technologies are practically employed and how they impact the effectiveness and legitimacy of DDA. For example, the decline in the use of the LiquidFeedback platform following the German Pirate Party's decision that approved proposals would not be binding illustrates how usage norms can influence the political impact of these tools (Deseriis 2023a: 17).

While Deseriis provides a useful framework for analyzing DDA, it is essential to expand this framework with a dynamic approach to the dimensions of participation quality and scope. Participation quality should not be regarded as static; rather, it varies depending on the context in which the platform is used and the interactions among participants. Higher participation quality can be achieved if the platform supports deliberation and inclusive discussions, which goes beyond mere voting. Similarly, the scope of participation is subject to changes over time and can be influenced by factors such as political campaigns, organizational changes, or specific events. To understand the true functionality of DDA, it is therefore necessary to examine how these dimensions evolve and what long-term impacts they have on participation.

Based on the analyses of Davide Vittori (2019), it becomes evident that the quality and scope of participation on digital platforms, such as Podemos and the Five Star Movement, are not constant but depend on various organizational and political factors. Vittori's work reveals that while these platforms may initially attract a significant number of participants, this participation may decline over time if the platforms do not ensure sustained political mobilization and relevance for the participants. This approach not only extends Deseriis' theoretical framework but also reflects insights from Vittori's analyses, which show that the ability of members to directly influence the platform's agenda can be a key factor in maintaining long-term engagement and participation. Exploring these factors provides a

more comprehensive understanding of how digital platforms can genuinely contribute to democratic processes and how they can be designed to be as effective as possible.

Based on Vittori's work (2019), we expect that the quality of participation on digital platforms will improve, and participation will become more stable if these platforms are designed to enable members not only to vote on existing proposals but also to initiate their own consultations and proposals, discuss with one another, provide comments on others' proposals, and contribute alternative perspectives.

Methodology

Case selection and description

We investigate the Czech Pirate Party (CPP), a small network party that is considered part of the original family of digital parties (Jääsaari, Šárovec 2021), making it a particularly relevant case study in the research of digital and, specifically, networked parties. The CPP was selected for this study because it has utilized a digital structure as the foundation of its operations since its inception, particularly in the areas of internal discussions and party voting processes. This makes the CPP an exemplary case for expanding the existing body of research on digital parties, which, to date, remains relatively limited in terms of the number of cases studied. Moreover, the inclusion of this case provides valuable insights from Eastern Europe, a region that has been underexplored in the current scholarship on digital parties. Previous research has primarily focused on the Swedish and German Pirate Parties, particularly regarding intra-party democracy (Bolleyer et al. 2015), organizational frameworks (Cammaerts 2015), programmatic agendas (Jääsaari, Hildén 2015), and descriptions of electoral results (Otjes 2019). There are also accounts of the participation platform LQFB in the German Pirate Party (Deseriis 2020b; 2022).

The CPP was established in 2009 through an online petition initiated by programmer Jiří Kadeřávek and quickly garnered the necessary 1,000 signatures. Advocating for internet freedom, copyright reform, and open access to information, the party first gained political traction by winning a Senate seat in 2012, marking a significant milestone as the world's first pirate party with national legislative representation. Further successes followed in the 2014 municipal elections, particularly in Prague. The 2017 parliamentary elections were a landmark, with the party winning 10.79% of the vote. Success continued with securing three seats in the 2019 European Parliament elections and acquiring three ministerial roles in the government formed in 2021, despite a significantly reduced share of parliamentary seats.

Research on the CPP has so far focused on analyzing its entry into the parliament (Maškarinec 2020), an overview of its digital platforms (Jääsaari, Šárovec 2021), analyses of anti-corruption communication through a lens of populism (Naxera 2023), intra-party democracy dynamics (Malý 2024), evaluation of its i-voting platform (Martínek, Malý 2024), hybridization of digital structures (Folvarčný, Kopeček 2024) and deliberative communications in entering municipal coalitions (Voda, Vodová 2020). This article aims to extend the debate on the CPP from the perspective of digital democratic participation, exploring how its internal participatory platforms facilitate or hinder democratic engagement within the party.

Data and Methods

In this article, we employed a mixed-methods approach. For the sections on Software Design and Norms of Use, we conducted a qualitative analysis using party documents and the party's websites to examine the functioning of participatory platforms and their integration into the party's operations. We analyzed party statutes to assess the platforms' alignment with statutory norms, and we utilized the party's internal Wikipedia, which provides detailed information on each platform used within the party. Additionally, we used the collection of internal regulations that describe the procedures for online voting and discussions. Furthermore, we conducted email correspondence with the head of the Administrative Department of the CPP to obtain supplementary information on the development of individual consultations, particularly on aspects not covered by the aforementioned public sources.

To analyze participation, we gathered data from the Pirate Party Forum, focusing specifically on consultation threads that occurred between 2017 and 2023 (Malý, Martínek 2024). The objective of this data collection was to provide a quantitative assessment of various aspects of these consultations. In total, 103 consultations were analyzed. The dataset includes several key metrics. The first metric is voter turnout, which represents the number of members who participated in the voting process for each consultation. We also recorded the number of eligible voters, defined as the total number of party members with voting rights. Another important metric is the number of comments within the consultation threads, used as an indicator of member engagement and the extent of discussions surrounding each consultation topic. Additionally, we examined the number of votes received by the winning options in each consultation, which reveals the level of support for the winning variant and helps determine whether the results exhibit a plebiscitary character. Finally, we tracked the number of days during which voting was open for each consultation. For each of these metrics, annual averages were calculated to identify trends and changes over time.

Analysis

The CPP Digital and Participatory Tools

The CPP operates a comprehensive internal system composed of various interconnected tools, primarily based on open-source platforms. Table 1 outlines the party's main systems, detailing their functions, development processes and user access methods.

Table 1: Information systems of the Czech Pirate Party

Function	Tool	Development	Users	URL
I-voting	Helios Voting	Open Source with modifications	Members	helios.pirati.cz
Discussion, Nomination	phpBB forum	Open Source	Everyone	forum.pirati.cz
Surveys (non-binding)	LimeSurvey	Open Source	Members	ankety.pirati.cz
Membership Management	Octopus	Self-developed	Administrators, Leadership	chobotnice.pirati.cz
Authentication SSO (Pirate Identity)	KeyCloak	Open Source	Members, Registered supporters	auth.pirati.cz
Voice meetings	Jitsi	Open Source	Everyone	jitsi.pirati.cz

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I-voting	Helios Voting	Open Source with modifications	Members	helios.pirati.cz
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Surveys (non-binding)	LimeSurvey	Open Source	Members	ankety.pirati.cz
Membership Management	Octopus	Self-developed	Administrators, Leadership	chobotnice.pirati.cz
Informal discussion	Zulip	Open Source	Members, Registered supporters	zulip.pirati.cz
Wiki	DokuWiki	Open Source	Everyone	wiki.pirati.cz
Project management	Redmine	Open Source	Members, Everyone	redmine.pirati.cz
Contact records	OpenLobby	Self-developed	Everyone	evidence.pirati.cz
Learning	Moodle	Open Source	Members, Registered supporters	moodle.pirati.cz
Registration of new user	Onboarding	Self-developed	Everyone	nalodeni.pirati.cz
Register of contracts	Contracts	Self-developed	Everyone	smlouvy.pirati.cz
Reimbursement	PiroPlaceni	Self-developed	Administrators, Everyone	piroplaceni.pirati.cz
Donations	Donations Jekyll	Open Source with modifications	Everyone	dary.pirati.cz

Source*: own elaboration based on (Pirates 2022a).*

One of the central components of this system is the Octopus platform, developed by the party to manage its membership registry. This platform handles personal data, public profiles, identity verification requests, and membership fee payments, all in compliance with GDPR regulations. For new supporters, the party utilizes the Onboarding system, which provides access credentials to registered supporters. All party applications, managed by the technical department, are integrated into a Single-Sign On (SSO) system through Keycloak, an open-source identity and access management tool that enhances security with two-factor authentication (Chatterjee, Prinz 2022).

The party's key formal tools include a discussion Forum PhpBB (Patel et al. 2020) and the i-voting system Helios (Martínek, Malý 2024). The Surveys system is employed to gather opinions from party members and external individuals. For informal discussions, the Zulip platform is used, while live meetings of party bodies are conducted via the video conferencing tool Jitsi. The Pirate Wiki is utilized for managing the party's regulations and other documents. Project management, including departmental requests, is facilitated through the Redmine system. Educational courses are made available to members and registered supporters via Moodle. Additionally, the party's Contracts system publicly discloses all party contracts, while the Reimbursement system provides public access to the party's financial management. The OpenLobby application records lobbying contacts publicly, and the Donations system is used for fundraising.

Software Design

Among the primary participatory tools of the CPP are the internet forum (Pirates 2020a) and the Helios voting platform (Pirates 2020b). The forum is largely accessible to the public; however, there are sections restricted to members, registered supporters, or users with regional

limitations (Pirates 2020c). Visually, the forum appears outdated, reminiscent of the design of online forums from the early 2000s (Malý 2024); it was established concurrently with the party's founding in 2009 and has not undergone significant visual changes since then.

The main purpose of the forum is to facilitate communication, which can be either binding (e.g., related to voting) or non-binding, encompassing various topics related to politics and internal party life. The forum also serves as a platform for the organization and communication of regional and local associations (Jääsaari, Šárovec 2021). Although the Helios voting system is separate from the forum, discussions concerning specific votes take place there, and proposals that meet all necessary conditions are subsequently submitted for voting on Helios.

Non-binding discussions also occur outside the forum, such as on the internal platform Zulip (Pirates 2024c) or offline, but only on the forum can amendments to votes be proposed or procedural actions challenged. Discussions on the forum occur in the form of posts, which can be appreciated with so-called „thanks," serving as an indicator of popularity but without influencing the course of the discussion[2]. Posts are arranged chronologically, and this order cannot be changed (Pirates 2023a). Voting in the form of polls on the forum serves either as non-binding surveys or as a tool for gaining support for member consultation (see more in the Norms of Use section).

However, the forum polls had their issues, especially owing to the possibility for administrators to determine how each individual voted, leading to concerns about the party's democratic principles, particularly with the growing number of members (Martínek, Malý 2024). For this reason, it was decided in 2016 to move voting to the Helios platform.

Since 2016, the main electronic voting system of the CPP has been the open-source platform Helios Voting. This system uses homomorphic encryption to ensure the secrecy of individual votes while providing complete verifiability of the voting process (Adida et al. 2009). The Helios version 3 (Helios 2009) allows voters to verify that their vote was correctly cast and displays all submitted votes in encrypted form, enabling public verification of their correct counting.

The specific configuration of Helios used by the CPP, which displays the names of voters alongside the hash codes of their ballots, is resistant to Clash Attacks (Kusters et al. 2012). However, this method reveals information about voters who did not participate, which contradicts the Recommendation CM/Rec (2017)5 (Council of Europe 2017). In 2024, the party therefore modified the Helios system to display the hash codes of other voters in the ballot box only after the voting has closed (Martínek, Malý 2024). This step eliminated the public availability of information about who had already voted during the ongoing election. However, election administrators still have access to this information, giving them an advantage over ordinary voters.

To ensure the credibility of the results, the hash codes of all voters' ballots are published after the voting ends, allowing verification that no one voted on behalf of someone else. Although the public availability of these hash codes in connection with specific voters is useful for transparency, it may pose a future risk if the public key used in the election were compromised, potentially revealing the contents of individual votes (Cortier et al. 2014; Martínek, Malý 2024).

[2] "Thanks" can in some cases serve as preferences in the candidate selection process. This process happens most often in the case of nominations at regional level.

Voting in the Helios system is managed by administrators, usually representatives of the party's administrative department. The list of voters for a specific vote on the forum is imported using an API created by the party's technical department from the member register maintained in the Octopus system. As mentioned earlier, the forum is the first stop before the actual voting, where discussions on the proposal take place, and where a link to the Helios system is provided once the vote is created. Voters are informed via email, SMS, and other party communication channels (Martínek, Malý 2024).

On the voting homepage, voters have access to basic information about the election, including a description of the voting options, links to more detailed information on the forum, the election date, information about the administrator and election trustees, a list of voters, and access to the public ballot box. After selecting voting options in the voting booth, the ballot is encrypted (Martínek, Malý 2024).

The voter then must authenticate through the Pirate Identity (Single-Sign On Key) and submit their vote (Pirates 2022b; Pirates 2023c). This identity also serves as a login credential for the rest of the Pirate systems, including the forum. It is essentially a similar tool to, for example, a bank identity. The CPP requires that the member or registered supporter use their legal name in the format *Name.Surname* within the identity to allow identification in discussions.

After submitting the vote, the voter is informed of the successful delivery of the ballot, including a tracking hash[3], which allows them to verify the delivery of the ballot to the ballot box. The same information is also sent to their email (Martínek, Malý 2024).

To reduce the risk of coercion, the voter can submit the ballot multiple times, with only the last one being valid. After the voting closes, the trustees decrypt the overall result, which is then published. Voters can then verify the presence of their tracking hash in the publicly accessible ballot box and audit the entire voting process. The result is also recorded on the forum, where the administrative department subsequently ensures the implementation of the voting results (Martínek, Malý 2024).

Norms of Use

Members gain voting rights immediately upon acceptance by the regional forum, after which the process is finalized within the information system by the administrative department. Registered supporters generally do not have voting rights but are allowed to participate in discussions, among other activities (Pirates 2024b). Contributions from anonymous visitors are added only after approval by an administrator (Respondent 1). The administrative department also oversees the moderation of discussions on both the Forum and Zulip, ensuring that they adhere to the Rules of Online Communication (Pirates 2023a), which, for example, prohibit racist comments.

To initiate a group of members proposal, the required threshold is set at twice the square root of the number of members present (Pirates 2024e); however, it must not be less than 1% nor more than 20% of those present. For instance, with a total membership of 1,238, thirty-six votes are necessary, representing 2.9% of the membership (Malý 2024). Support for a proposal is gathered through public endorsements or forum polls. For a proposal to be eligible for voting, it must secure sufficient support within 24 hours,

[3] The tracking hash in the Helios Voting system is a unique identifier that allows the voter to verify that their vote has been correctly recorded without compromising their anonymity.

while ensuring that the opposition does not exceed the support. To include the proposal on the national forum agenda and subject it to a full vote, it must secure twice the square root of the total membership, which would be seventy-two votes, or 5.8% of the membership (Malý 2024). Subsequently, a forum discussion is initiated, which can be chaired by the chairman, vice-chairman, a member of the administrative department, or another designated member or registered supporter (Pirates 2024d). During the forum discussion, counterproposals can also be submitted, which must similarly garner the support of a group of members to proceed (Pirates 2023b).

The specific form of the resolution to be voted on is determined by the chair of the meeting. Members may also submit a motion against the chair for consultation on the wording of a question if its title is misleading (Respondent 1). For a proposal to be adopted, it must be approved by a majority of those voting, or by two-thirds of those voting if it is a fundamental proposal (Pirates, 2023b). The standard vote consists of two rounds. The first round is a vote on acceptability, where voters may choose from none to all options. The options selected by the required majority will proceed to the second round. In the second round, only those options that received votes in the first round are voted on. In the event of a tie, the result of the first round is considered. If the result is the same in the first round, the outcome is decided by drawing lots (Pirates, 2023b).

The administrative department is responsible for implementing the results, addressing objections, and overseeing the election process to ensure compliance with the party's regulations. The party's control commission serves as the supervisory body, and any disputes are resolved according to the Arbitration Rules before the party's Arbitration Commission. Any decision may be subject to further review by the National Forum of the party (Pirates, 2023b; Pirates 2024a; Respondent 1).

Participation

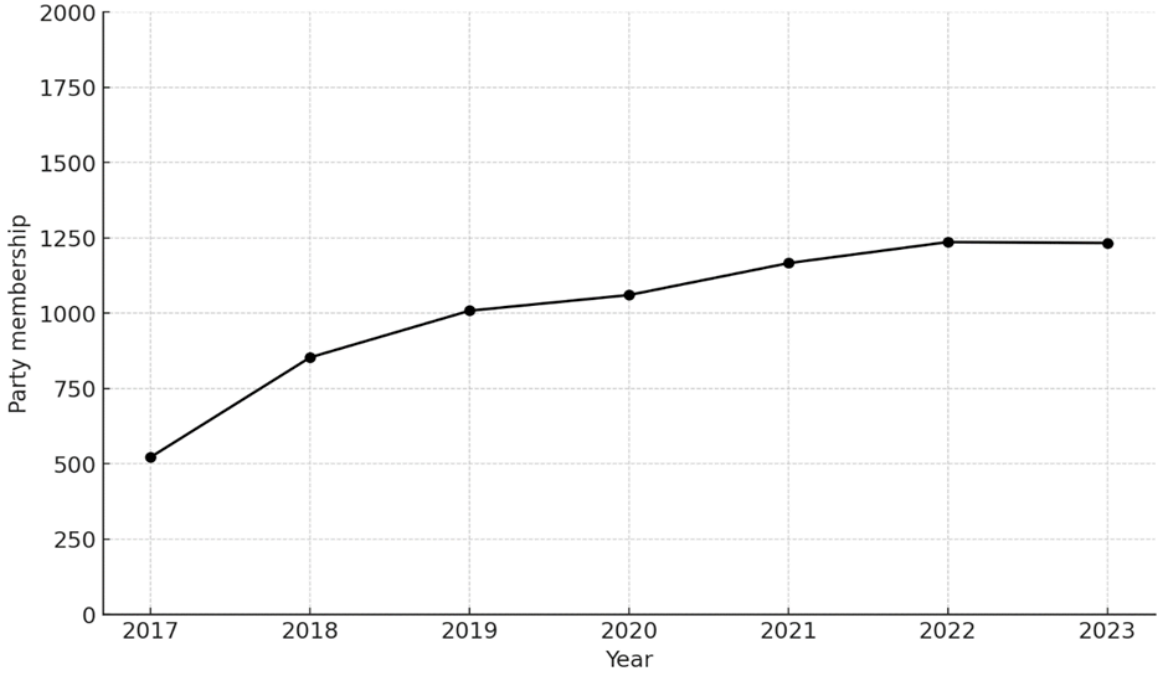
The CPP, unlike parties such as Podemos or the Five Star Movement, does not allow for non-exclusive membership that requires only a simple registration and verification process (Deseriis, Vittori 2019; Gerbaudo 2019; Vittori 2020). To become a member of the CPP, citizens must register through the Onboarding platform, with the registration process managed by the leadership of a regional or local organization. Prospective members are required to participate in either an online or offline meeting where they introduce themselves and are typically asked about their programmatic and ideological commitments. Additionally, they are usually expected to attend one of the regional or local party events to demonstrate their interest. This admission process often takes weeks to months to complete (Malý 2024). Membership is also subject to a minimum fee of 8 euros per year. Thus, the CPP operates on a principle of exclusive membership, which is relatively uncommon among digital and especially network-based parties.

Furthermore, the CPP offers a lighter form of cyber membership, known as registered supporter (Scarrow 2015). However, registered supporters are only permitted to vote in a limited number of instances, whereas full members have the right to vote in all cases and can propose consultations.

Figure 1 illustrates the evolution of CPP membership from 2017 to 2023. While the number of members is increasing, the total remains modest, with approximately 1,200 members, a figure that is significantly lower than those of other digital parties (Deseriis,

Vittori 2019; Vittori 2020). The low membership numbers may be attributed to the exclusive membership process, which limits large-scale growth through simple registration.

Figure 1: Membership development in the CPP from 2017 to 2023



Source: *Own elaboration based on consultations data from forum.pirati.cz and helios.pirati.cz.*

As mentioned in the methodology section, we collected data on 103 consultations conducted between 2017 and 2023, with an average of 14.4 consultations per year. These consultations cover topics such as internal governance and organizational structure, policy and ideological decisions, financial and resource management, membership and disciplinary matters, as well as procedural and miscellaneous votes. As shown in Table 2, there are no significant fluctuations in the number of consultations, and the frequency remains relatively stable over time.

Table 2: Internal consultations per year in the CPP

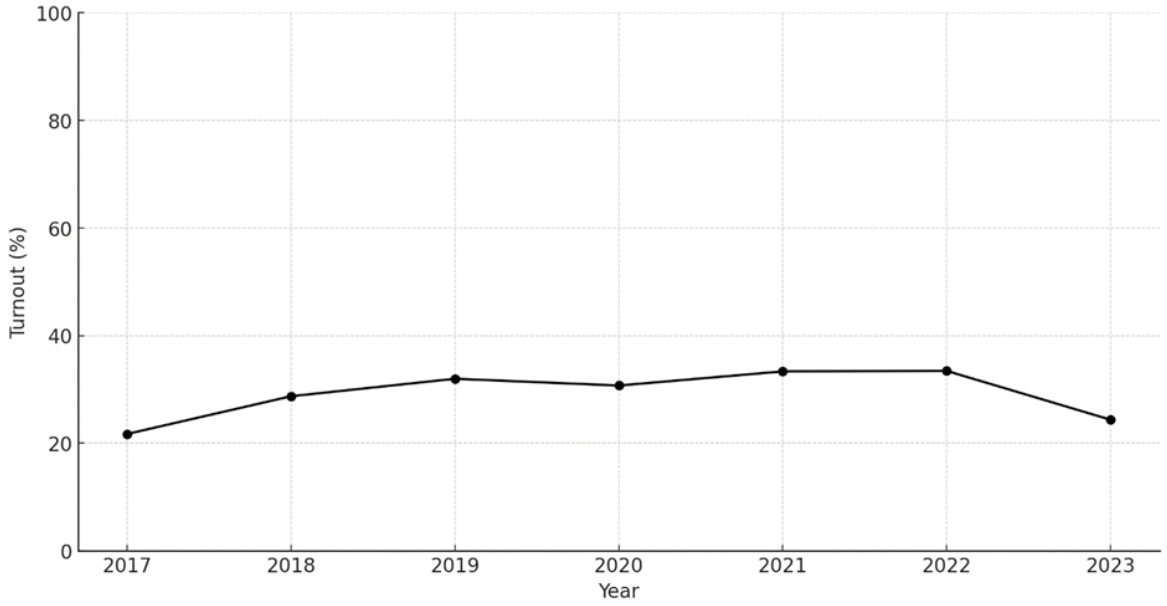
Year	2017	2018	2019	2020	2021	2022	2023
Number of consultations	12	11	9	13	22	17	15

Source: *Own elaboration based on consultations data from forum.pirati.cz and helios.pirati.cz.*

However, does an inclusive environment, where members can propose consultations, discuss, provide feedback, and even challenge their content, necessarily lead to stable participation? To address this question, we averaged turnout data for each year to track its trend over time. As Figure 2 illustrates, the participation rate remains relatively stable without significant drops or increases. Nevertheless, the overall turnout consistently hovers around 30%, which is somewhat surprising given the more inclusive conditions. This rate is comparable to the average participation levels observed in Podemos and the Five Star Movement (Deseriis, Vittori 2019). One possible explanation could be voter fatigue

due to the high frequency of voting (Kostelka, Blais 2021), as in addition to consultations, the party also conducts internal primaries (see Martínek, Malý 2024). Furthermore, members may prefer to vote only in decisions they perceive as highly salient or where much is at stake. Our data indicate a high participation rate (an average of 80%) in votes related to joining pre-electoral coalitions and government formation, whereas participation drops significantly (to an average of 20%) in other less critical votes.

Figure 2: Voter turnout in CPP consultations 2017-2023



Source: *Own elaboration based on consultations data from forum.pirati.cz and helios.pirati.cz*

As Gerbaudo points out, intra-party ballots can often tend to be plebiscitary. The main reasons for this outcome, according to Gerbaudo, are the lack of opportunities for members to engage in discussions about the consultations, propose their own consultations, or influence the wording and timing of the questions, which are typically controlled by the party leadership (Gerbaudo 2019, 141-142). As a result, voting becomes a top-down tool rather than a participatory process.

As mentioned above, in the case of the CPP, members can propose their own consultations and participate in debates on the forum, where they can present alternative viewpoints and challenge the wording of the questions. Therefore, we expected that the voting outcomes in the CPP would not exhibit plebiscitary characteristics. In Table 3, we categorized the analyzed consultations according to the percentage of votes received by the winning option.

Table 3: Distribution of Consultations by Turnout Percentage Ranges for the Winning Option

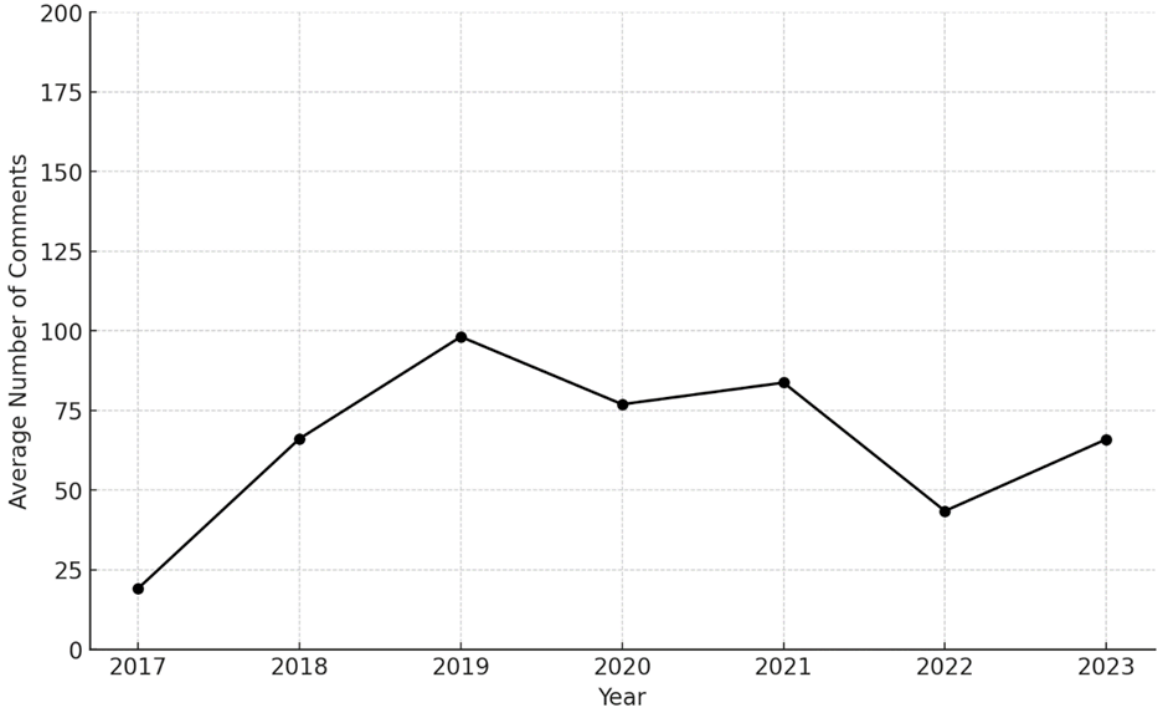
%	0-10 %	10-19 %	20-29 %	30-39 %	40-49 %	50-59 %	60-69 %	70-79 %	80-89 %	90-100 %
Count	0	1	0	0	11	21	22	19	20	9

Source: *Own elaboration based on consultations data from forum.pirati.cz and helios.pirati.cz*

Out of the consultations where the winning option received more than 80% of the votes, the majority were related to internal governance and organizational structure, with 10 such cases. Financial reports and audits accounted for 7 consultations, while strategic decisions, such as long-term goals and major policies, had strong support in 4 instances. Thus, it can be said that the high level of support is driven by various factors, which in only a few cases are related to the leadership's position (such as entering a coalition and joining the government). In most cases, the high support is for organizational matters. Another factor may be that 51 consultations offered more than two alternatives for members to vote on, which could contribute to the absence of plebiscitary outcomes. Additionally, the fact that voting typically lasts for an average of three days, often spanning the weekend, may also contribute to the stability of turnout. This extended period likely allows more members the opportunity to participate in important consultations, which can also avoid plebiscitary outcomes.

To further analyze the discussions on the forum related to these consultations, Figure 3 shows that the average number of comments has remained stable over time, with a slight upward trend. The average number of comments per consultation stands at 69.5, which is relatively high given the size of the party compared to other digital parties. As Mosca (2020) demonstrated in his study, the average number of comments per law proposal in the Five Star Movement was 446 in 2014, but this number dropped to just 63 by 2017. The stability in the number of comments within the CPP may be attributed to the fact that, within the party's debate process, members can submit alternative proposals for voting, which adds a certain quality to the deliberation.

Figure 3: Average number of comments in consultations from 2017 to 2023



Source: *Own elaboration based on consultations data from forum.pirati.cz*

Discussion – factors affecting participation

As stated in the Introduction, the objective of this paper was to identify the factors that influence participation in the internal consultations of the CPP. The first factor that can significantly impact participation stability is exclusive membership. A selective membership process may result in a base of members who are genuinely interested in active participation and engagement in party life. In contrast to the more accessible registration processes seen in Podemos and the Five Star Movement—where members eventually lost interest in participation (Biancalana, Vittori 2021)—exclusive membership may foster stronger connections between members and the party's processes (Gauja, 2013). However, this form of membership also limits the expansion of the party's membership base, which is why the CPP has a relatively small membership compared to other digital parties (Deseriis, Vittori, 2019; Gerbaudo, 2019; Vittori, 2020).

Another factor is the party leadership's responsiveness to members' demands, such as modifying the voting platform to ensure genuinely secret ballots, making it impossible to determine how individuals voted. Mosca (2020) identifies the absence of a party leadership response as one of the factors contributing to decreased turnout.

In contrast to Podemos and the Five Star Movement, the CPP allows its members to submit their own consultation proposals with a relatively low quorum of 5.8%. This threshold is lower than that of Podemos (10%), although Podemos had 500,000 members at its peak (Vittori, 2020). If Podemos had the same number of members as the CPP, the number of member consultations would likely be significantly higher. Thus, while this procedure is inclusive, its effectiveness is conditioned by the exclusive nature of membership and the small number of members.

An important factor affecting participation is the ability to submit alternative positions for voting. This process helps to prevent potential plebiscitary outcomes in the voting process. Additionally, members may contest the wording of questions if they find them misleading, which further supports trust in the voting process. This trust is also related to the duration of the voting period, which typically lasts three days and occurs over weekends, providing members with ample time to participate. Members are also notified via email and SMS about ongoing votes, which may further contribute to higher participation rates. These features significantly differentiate the CPP from the Podemos and Five Star Movement, where absence of these tools was one the factors of unstable participation (Deseriis, Vittori 2019; Gerbaudo 2019; Vittori 2020).

Although the participatory procedures of the CPP are relatively inclusive (excluding the aspect of exclusive membership) and offer members considerable influence over the participatory processes, overall average turnout remains relatively low at 29.77%, and the CPP has struggled to increase this figure over time. This outcome suggests that an inclusive framework does not necessarily lead to high levels of participation. On the other hand, the turnout rate and level of discussion have remained stable over time, confirming our expectation that inclusive software design and norms of use would lead to participatory stability.

Conclusion

This article examines the participation platforms of the Czech Pirate Party (CPP), specifically the party forum and Helios, through the lens of the digital democratic affordance framework

proposed by Marco Deseriis (2023b). The framework was expanded by incorporating the quality and scale of participation as a single dependent variable over time. The aim of the study is to explore whether the inclusive setup of software design and usage norms positively affects the stability of participation, including voter turnout and the level of discussion.

From the perspective of software design and norms of use, the CPP provides its members with a space for discussion, the ability to propose consultations, and tools to properly submit these proposals. Since 2016, the party has employed the Helios platform, which meets members' demands for secret voting while eliminating the ability to monitor members' activity. Additionally, the party informs its members about upcoming votes and provides sufficient time for participation. Members also may comment on consultations and challenge their content if they find it misleading.

Although this setup appears highly inclusive, only members who have undergone a comprehensive admission process can participate. The presence of exclusive membership is relatively uncommon among digital parties and contradicts Deseriis's (2020a) assumption of non-exclusive membership in network parties. This raises the question of whether the CPP should be classified as a network party or as some kind of digital cadre party.

Exclusive membership might be an explanatory factor for the stability of turnout and discussion within the CPP, which indeed remains stable. Despite the inclusiveness of participation procedures, voter turnout averages just under 30% of the membership, a figure comparable to the average turnouts in Podemos and the Five Star Movement (Deseriis, Vittori 2019; Gerbaudo 2019; Vittori 2020). This outcome raises further questions about whether an inclusive setup necessarily leads to higher participation levels. In the case of the CPP, it does not. The findings are limited by the scope of the analysis, namely, a single case study. Future research should focus on the factors influencing turnout rates and whether members are more inclined to participate in regional or local voting, which may be more relevant to them than national-level issues.

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Appendix

List of examined documents of the Czech Pirate Party

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Respondent 1 - Head of the administrative department, party member. The unstructured interview was conducted several times between February and August 2024 via Messenger communication.