



Who Gets a Voice Online? Family Resources, Gender, and Cohort Differences in Youth Political Participation in Europe

Alice Sanarico¹ 

Received: 20 December 2025 / Accepted: 27 April 2026
© The Author(s) 2026

Abstract

Across Europe, young people report declining electoral participation yet remain active in informal and online political expression. While digital platforms are often portrayed as democratizing political voice, it remains unclear whether they truly mitigate structural inequalities or reconfigure them in new forms. This study examines how gender, family SES, and generational cohort shape youth participation across electoral, informal, and online arenas, asking whether digital platforms operate through different mechanisms than resource-intensive offline channels. Using data from the 2021 Flash Eurobarometer ($n = 17,953$; ages 15–30; 27 EU member states), this study examines three hypotheses: (1) gender gaps vary by participation form, with women more active in informal and online engagement; (2) SES effects attenuate online as communicative competencies replace material resources; (3) family political discussion effects persist similarly across Millennials and Gen Z, suggesting continuity rather than rupture in socialization. The findings show that young women report higher levels of participation than young men across all forms, challenging conventional assumptions about gender gaps in political engagement. Socioeconomic resources remain strong predictors of electoral and informal participation but play a weaker and more uneven role online. Generational differences are modest, suggesting continuity rather than rupture in political socialization processes. Overall, digital platforms expand expression opportunities for expression but reconfigures rather than dismantles enduring inequalities in youth political participation.

Keywords Youth political participation · Political socialization · Gender and politics · Online political participation · Socioeconomic inequality

✉ Alice Sanarico
alice.sanarico@unimi.it

¹ Department of Social and Political Sciences, University of Milan, Milan, Italy

Introduction

Across Europe, young people report declining engagement with formal politics, threatening a cornerstone of democratic participation (Grasso & Giugni, 2021; Kitanova, 2019; Lello & Bazzoli, 2023). Yet this narrative of withdrawal obscures a more complex reality: while young people participate less in the electoral sphere, they remain active in informal and online forms of political expression (Dalton, 2008; Theocharis & van Deth, 2018).

Online political participation has received increasing scholarly attention in recent years as it reshapes traditional political landscapes. Social media and digital platforms have opened new avenues for political expression that might be beneficial for younger generations who are often disengaged from politics (Grasso, 2017; Zani & Cicognani, 2019). These online spaces can offer a more accessible and less hierarchical environment which may potentially allow young people, especially young women, to engage more in politics (Bode, 2016; Mendes et al., 2019). For example, Quintelier (2013) underlines the growing importance of news consumption and internet use in engaging in politics. Still, even if digital platforms hold the promise of democratizing political voice, it remains unclear whether they truly mitigate the social and structural inequalities that shape political engagement offline.

Digital platforms are often portrayed as more accessible and less hierarchical, potentially enabling greater engagement among underrepresented groups. This shift raises a critical question: are digital platforms democratizing political voice, or are they reconfiguring existing inequalities in new forms?

The relationship between family background and political engagement is well established. High-SES families provide resources that foster political participation across contexts (Dinas, 2010; Janmaat & Hoskins, 2022; Verba & Nie, 1972). Similarly, family political discussion transmits communicative competencies and political interest that shape long-term engagement (Jennings et al., 2009). Yet a critical insight remains underexplored: online participation may operate through different mechanisms than formal, resource-intensive channels.

When material barriers to participation diminish as they do online, different resources become salient. Communicative competencies may become more predictive than material SES. For young women, this shift is particularly consequential: research shows that gendered socialization channels young women toward emotionally expressive, collective, and symbolic forms of activism (Bennett & Segerberg, 2012; Mendes et al., 2019), while young men are socialized toward contentious and direct engagement. Online platforms, with their emphasis on expressive, identity-oriented participation, align with women's socialized communicative styles, potentially enabling greater engagement than formal, hierarchical institutions.

A final dimension concerns generational change in political socialization. Classic research emphasizes the enduring importance of family political discussion in fostering engagement (Jennings et al., 2009; McIntosh et al., 2007). However, shifts in media consumption and political expression suggest that younger cohorts may rely less on family cues and more on peer networks and digital platforms to form their political views (Loader et al., 2014; Vromen et al., 2016). For Millennials, family political discussion during adolescence was a primary channel for developing

communicative competencies and political interest. For Gen Z, however, early and continuous digital exposure means these competencies developed through different pathways.

Despite these well-documented patterns in offline contexts, the role of digital platforms in mitigating or reinforcing these structural inequalities remains unclear. Some scholars argue that online political engagement offers women more democratic access to debate and activism (Bode, 2016), while others suggest it reproduces the same gendered dynamics present in offline spaces (Valenzuela et al., 2009). Additionally, generational shifts, particularly the contrast between Millennials and Gen Z, raise more questions about how being a digital native alters the relationship between family influence, gender, and political behavior. Despite these developments, most research examining gender, class, and generational effects on youth participation treats these dimensions in isolation, and few study how they intersect across multiple participation forms. Moreover, while studies document that online participation is expanding, they rarely ask whether this expansion reflects genuine democratization or a transformation of inequality into new forms.

This paper examines how gender, family socioeconomic background, and generational cohort intersect to shape youth participation across formal, informal, and online arenas. Specifically, the paper asks: *To what extent do gender and family socioeconomic background influence online political participation among youth in Europe, and how do these effects compare across generational cohorts?*

Using data from the 2021 European Parliament Youth Survey, ($N \approx 18,000$ across 27 EU member states), I analyze three main hypotheses: (1) gender gaps in participation vary by form, with women more active in informal and online engagement; (2) family SES matters less for online participation than for formal participation, as communicative competencies replace material resources as determinative; and (3) family political discussion exerts weaker effects on Gen Z's online participation than on Millennials', reflecting their different pathways to political socialization.

The article is structured as follows. First, a literature review discusses existing research on gendered political socialization, parental influence, and online participation. Next, the hypotheses are outlined, followed by a discussion of the data and methods. The results are then presented and interpreted, leading to a final section with conclusions and implications.

Literature Review

Parental Influence and Family Political Discussion as Core Resources

The fundamental influence of parents in shaping young people's political orientations has been extensively documented since the work by Jennings and Niemi (1968). Adolescence and early adulthood, which are called by Dinas (2010) the “impressionable years”, are particularly formative for developing long-lasting political attitudes and predispositions. During this phase, parental socialization, both direct and indirect, plays a crucial role and its effects persist into adulthood across various European contexts (Kim, 2018; Kroh & Selb, 2009; Neundorff & Niemi, 2014).

The Civic Voluntarism Model (CVM; Verba et al., 1995) remains the most influential framework for understanding how family political socialization translates into participation. The model emphasizes that political engagement is mediated by the resources families provide, including education, income, and civic skills. Among these, family political discussion deserves particular theoretical attention: it functions not merely as a byproduct of high socioeconomic status (SES), but as an independent channel through which families transmit communicative competencies, political vocabulary, and discursive confidence that structure engagement across all participation modes (Andolina et al., 2003; Jennings et al., 2009).

Direct parental influence comes from practices such as political discussions within the family and the explicit encouragement of political interest. Adolescents who frequently discuss politics with their parents are more likely to become politically engaged themselves (Andolina et al., 2003; Graham et al., 2020; Jennings et al., 2009; McIntosh et al., 2007). Likewise, the similarity between parent and child political ideologies further fosters intergenerational continuity (Dinas, 2014; Ojeda & Hatemi, 2015; Stattin et al., 2021). Recent applications of the CVM to European youth confirm that political discussion with parents is a significant predictor across formal, informal, and civic participation dimensions (Kirbiš et al., 2017), though the relative predictive power of CVM components varies by participation type.

Indirectly, the family's socio-economic status (SES) shapes the home environment in ways that either support or inhibit political engagement (Verba & Nie, 1972). Families from higher SES backgrounds provide more access to civic resources, extracurriculars, and high-quality education which are all key enablers of political development (Grasso & Giugni, 2021; Janmaat & Hoskins, 2022; Jungkunz & Marx, 2023).

Despite increasing individualization in political socialization processes due to digital media and peer influence, the enduring relevance of parental cues remains evident (Hoskins & Janmaat, 2024; van Ditmars, 2023). What remains unclear, however, is whether parental influence is weakened, transformed, or merely redirected in digital political environments, where participation may be less costly but still unequally distributed.

Gendered Political Socialization: Same Resources, Different Outcomes

From an early age, children internalize ideas about power and leadership that associate politics with masculinity, shaping political ambition and interest along gender lines (Fox & Lawless, 2014; Sanbonmatsu, 2003). Gendered expectations are transmitted through families, schools, media, and extracurricular spaces. Parents are more likely to talk politics with sons than daughters, reinforcing boys' political efficacy while weakening girls' ambition (Cicognani et al., 2012; Fox & Lawless, 2014; Pensiero & Janmaat, 2025; Weiss, 2023; Wolak, 2020).

Critically, the transmission of communicative competencies through family discussion is not gender-neutral. Political discussion within families tends to reinforce rather than challenge broader patterns of gendered political socialization: daughters are less likely than sons to be encouraged toward authoritative political speech, and more likely to be socialized into listening and affective engagement rather than argu-

mentative assertion (Verba et al., 1997; Campbell & Wolbrecht, 2006). This implies that equivalent levels of family discussion may produce different participatory outcomes for young men and women, not because discussion is less available to women, but because its socialization effects are filtered through gendered norms of political expression.

Schools further reinforce masculine-coded political norms by centering curricula around male political figures and competitive, assertiveness-rewarding activities such as debates and student elections (Cassese & Holman, 2018; Janmaat et al., 2022; García-Albacete & Hoskins, 2024). These experiences reproduce archetypes of the strong, decisive male leader (Rudman & Glick, 2001), while collaborative or empathetic traits (more commonly linked to femininity) are marginalized as incompatible with political leadership (Bauer, 2020; Eagly et al., 2000).

Gender Gaps and Mixed Evidence in Youth Participation

Despite these patterns, research shows that young women participate at comparable or higher levels than young men in certain contexts. Grasso and Smith (2021) found that while young men remain more active than young women in formal, institutionalized political settings such as parties and traditional voting-related behaviors, young women tend to be more involved in informal civic activities such as petitioning, boycotting, and volunteering (Quintelier, 2013). This divergence reflects both structural barriers and the reallocation of participation into less institutionally valued or expressive forms that better align with women's socialized communicative styles.

Political ambition, interest, and efficacy remain lower among young women (Cicognani et al., 2012; Fox & Lawless, 2014; Janmaat et al., 2022), especially in spaces dominated by masculine norms. In political meetings and classrooms, men frequently speak longer, interrupt more, and are perceived as more competent, while women are sidelined into stereotypically "female" tasks or issues (Beauvais, 2020; Karpowitz & Mendelberg, 2014). Women often need to prove their competence to a greater degree than men (Cella & Manzoni, 2023; Ditonto, 2017; Galea & Gaweda, 2018), and these dynamics can significantly deter political ambition among young women, suggesting that higher participation in some contexts may reflect a reorientation toward forms perceived as more congruent with gendered expectations rather than substantive empowerment.

Online Political Participation and the Reconfiguration of Resources

Online political participation has become a central aspect of youth engagement, offering new ways to express opinions and mobilize around causes. Social media platforms such as Twitter, Facebook, Instagram, and TikTok have expanded the repertoire of political acts beyond traditional offline activities like voting or protesting. These online spaces are often described as more accessible and less hierarchical, potentially lowering barriers for underrepresented groups (Boulianne, 2015; Tufekci, 2014).

Symbolic online participation—expressive political acts that signal identity, values, or solidarity without requiring direct engagement with formal political institu-

tions—has become increasingly prevalent. Scholars debate whether such engagement constitutes low-effort “slacktivism” (Gladwell, 2010) or whether it can serve as a gateway to deeper involvement (Christensen, 2011; Theocharis, 2015). Online participation enables affective and identity-based forms of activism, particularly appealing to younger generations (Amnå & Ekman, 2014; Bennett & Segerberg, 2012; Ekman & Amnå, 2012). However, symbolic participation remains analytically ambivalent: while visible and meaningful at the level of identity and values expression, its capacity to challenge structural inequalities remains contested and this has led to calls for expanding definitions of political participation to include symbolic and expressive acts (Gibson & Cantijoch, 2013; Theocharis & van Deth, 2018).

Gendered dynamics shape how young people engage politically online. Some studies suggest women gravitate toward symbolic and expressive forms of activism such as posting images, sharing personal stories, or participating in hashtag campaigns, reflecting broader gendered socialization patterns (Boulianne & Theocharis, 2020; Mendes et al., 2019). Movements like #MeToo or Black Lives Matter illustrate how women’s online activism can mobilize meaningful political action (Bode, 2017; Heger & Hoffmann, 2019) aligning with communicative repertoires centered on listening, affective expression, and collective identity-building.

Socioeconomic status (SES) also plays a role in shaping online participation. While digital platforms reduce some resource barriers, inequalities persist through differences in digital literacy, access, and skills (Schradié, 2019). Higher-SES youth may be better equipped to leverage online tools for political influence, while lower-SES youth may face constraints despite the apparent accessibility of digital spaces. Family political discussion and parental influence remain relevant, though their impact in online contexts is less well understood (Feezell, 2016; Oser et al., 2013).

A critical insight emerges: while material SES constraints matter less online as digital platforms democratize access (Bode, 2016; Gibson & Cantijoch, 2013), participation inequalities may persist through different mechanisms such as digital confidence, cultural repertoires, and communicative styles. Rather than eliminating inequality, digital platforms may shift the resources that matter thereby reconfiguring, rather than erasing, participation gaps.

Online Political Participation, Gender, and Parental Influence: Generational Differences

Generational differences are often considered to explain variation in political participation. Millennials, who came of age during the expansion of social media, are contrasted with Generation Z, often described as “digital natives” (Loader et al., 2014; Twenge, 2017). Scholars argue that Gen Z’s formative experiences with digital technologies may foster distinct repertoires of political engagement, emphasizing expressive and online forms (Pickard, 2019). This raises the question of whether digital nativity itself constitutes a form of cultural capital, providing Gen Z with pre-existing communicative repertoires suited to online engagement independently of family socialization. If Gen Z develops communicative competencies through early and continuous digital exposure, family political discussion might exert differential influence on their online participation compared to older cohorts.

However, empirical evidence remains mixed. Some studies find limited differences once demographic and contextual factors are controlled, suggesting continuity across youth cohorts (Grasso & Giugni, 2021). Others highlight subtle distinctions, such as Gen Z's preference for individualized, identity-driven activism compared to Millennials' more collective repertoires (Theocharis & van Deth, 2018). Overall, literature underscores the need for comparative analyses to assess whether generational cohort effects meaningfully moderate the relationship between family influence and online political participation, or whether digital platforms standardize youth repertoires across age groups.

Hypotheses

Gendered Patterns of Political Participation

Gendered political socialization channels young women toward expressive rather than institutional modes of engagement. While women remain underrepresented in electoral political participation though evidences are mixed, they are often very active in informal civic activities like volunteering, boycotting, and protesting (Cicognani et al., 2012; Grasso & Smith, 2021).

Online participation expands the repertoire to include symbolic and expressive practices emphasizing identity and values signaling. These forms align with communicative styles women have been socialized to deploy, potentially reducing traditional barriers to female engagement (Bode, 2017; Heger & Hoffmann, 2019). Building on the argument that gendered political socialization channels women toward expressive rather than institutional modes of engagement, the following hypothesis is proposed:

HP1: Female youth will be more likely than male youth to engage in informal and online political participation, while gender differences in electoral participation will be less pronounced.

Family Socioeconomic Status (SES) and Online Participation

A second dimension of analysis concerns the influence of family socioeconomic status (SES), and how this interacts with gender across different forms of political participation. The Civic Voluntarism Model establishes that resources drive participation in conventional contexts: higher-SES families provide education, income, and civic skills that increase engagement in formal and informal channels (Verba et al., 1995). However, online participation operates under fundamentally different structural conditions since material and organizational costs are substantially lower. These different conditions shift which resources are determinative: when material barriers diminish, communicative competencies become more salient predictors of engagement.

For young women, this shift is particularly consequential. Women face additional barriers in conventional, male-dominated, resource-intensive channels (Bennett & Segerberg, 2012; Mendes et al., 2019), but online participation's emphasis on expres-

sive engagement aligns with their socialized communicative styles, reducing reliance on material resources.

Building on this literature, the following hypotheses are proposed:

HP2a: Family SES will be less predictive of online political participation than of formal or informal participation.

HP2b: The attenuating effect of SES will be most pronounced among young women, who may find online participation more accessible than conventional, resource-intensive forms.

Generational Differences in Political Socialization and Online Participation

Family political discussion transmits communicative competencies that foster political engagement (Jennings et al., 2009; McIntosh et al., 2007). However, Gen Z developed these competencies through early, continuous digital exposure such as peer networks, platforms, and influencers shaped their communicative styles from childhood. For digital natives, alternative pathways to communicative competencies may matter more than family discussion (Loader et al., 2014; Vromen et al., 2016).

Additionally, gendered patterns of family political discussion may condition cohort differences. If parents discuss politics less with daughters than sons, the cohort effect may operate differently by gender: Millennials, whose family socialization occurred in pre-digital contexts, may show stronger gender gaps in the family discussion effect. Gen Z, with more normalized online participation across gender lines, may show attenuated gender differences in how family discussion translates to online engagement.

Accordingly, the following hypotheses are proposed:

HP3a: The moderating effect of family political discussion on online participation will be weaker for Gen Z than for Millennials.

HP3b: The influence of SES and gender on participation will differ across cohorts, with expectations that Gen Z's digital nativity reduces reliance on family resources compared to Millennials.

Methodology

Data

The dataset employed in this study is the Flash Eurobarometer 2574—European Parliament Youth Survey, which was conducted by Ipsos European Public Affairs on behalf of the Directorate-General for Communication of the European Parliament. The survey was carried out in June 2021, using a non-probability sampling method across 27 European Union (EU) member states, with a total sample size of 17,953 respondents.

The survey targeted young people aged 15 to 30 years and the aim was to capture their attitudes and opinions on the European Parliament and their broader political engagement. The dataset encompasses a wide range of demographic variables, including age, gender, educational background, employment status, and geographical location.

All interviews were conducted using Computer-Assisted Web Interviewing (CAWI) through Ipsos online panels and their partner network. Participants were selected from online access panels, which consist of pre-recruited individuals who have agreed to take part in research. Sampling quotas were established based on age (16–18, 19–24, and 25–30 years), gender, and geographic region (NUTS1, NUTS2, or NUTS3, depending on the country's size and the number of NUTS regions) (European Parliament 2021, p. 67).

Variables

Table 1 outlines the independent and conditioning/control variables, along with details on how they are operationalized and measured.

To operationalize the three participation dimensions, I first conducted an exploratory factor analysis (EFA) using principal-component factorization with varimax rotation on all 10 participation items ($N=16,107$). The EFA revealed a factor structure inconsistent with established participation theory, specifically cross-loading and theoretical inconsistency, high item uniqueness and ambiguous item location (see Appendix 1). Following recommendations prioritizing conceptual clarity and prior research in guiding measurement (Fabrigar & Wegener, 2012), I therefore constructed indices based on established theoretical distinctions rather than the empirical factor solution. This approach ensures measurement validity by: (a) excluding high-uniqueness items (Contacted a politician about an issue and Taken part in a public consultation); (b) removing the ambiguous petition item (Created or signed a petition on paper or online); and (c) assigning remaining items according to established conceptual frameworks (Verba et al., 1995 for formal; Dalton, 2008 for informal; Theocharis & van Deth, 2018 for online). This decision implies potential limitations: the indices may mask hybrid or “bridging” forms of participation (e.g., online petitioning, which can be both institutional and digital) that will be further discussed in the Discussion section. Following also Theocharis and van Deth (2018), online participation is understood as occupying an intermediate position: it constitutes genuine political behavior insofar as it involves intentional, public expression of political preferences, but it is treated as primarily expressive rather than instrumental in character.

Each index was calculated as the mean of its respective items and then standardized to ensure comparability across dimensions as showed in Table 2.

Methods

To empirically test the hypotheses, I estimate three sets of regression models using the standardized indices of electoral, informal, and online participation as depen-

Table 1 Operationalization of independent and control variables

Label	Concept	Measure	Distribution
Independent variables			
Gender	Binary gender ¹	Male=0	49.42%
		Female=1	50.58%
Parental education	Parents' highest level of education	Lower secondary or less=0	5.89%
		Upper secondary=1	49.98%
		University=2	44.13%
Financial situation	Subjective evaluation of financial situation	Poor=0	40.34%
		Average=1	41.63%
		Good=2	18.04%
Cohort	Age in two categories (Millennials and GenZ)	16—24 (Gen Z)=0	52.76%
		25—30 (Millennials)=1	47.24%
Individual-level control variables			
Political discussion	Discussion on political and social issues with friends and relatives	Never=2	11.67%
		Occasionally=1	62.98%
		Frequently=0	25.36%
Minority status	Subjective evaluation of being an ethnic/religious minority or migrant	Yes=0	12.60%
		No=1	87.40%
Occupation	Occupational status	Working=0	67.05%
		Student (full-time)=1	19.72%
		Other=2	13.24%
Area of residence	Type of geographical area of residence	Rural area=0	25.59%
		Small/medium town=1	41.91%
		Large town/city=2	32.51%
Contextual-level control variables			
Country	Country of residence		

¹Although the survey includes a small number of respondents identifying outside the gender binary, their proportion was too limited to support reliable multivariate analysis. In particular, the category “In another way/Prefer not to say” (0.61% of the sample) was dropped from the regressions

dent variables. All models include country fixed effects, so coefficients are identified from within-country variation and are net of any unobserved, country-level factors that are common to respondents within the same national context (e.g., institutional features or broader political conditions). Accordingly, the analysis is not designed to estimate the effects of specific contextual (country-level) characteristics, but rather to assess individual-level associations while holding constant cross-national heterogeneity.

Table 2 Operationalization of dependent variables

Label	Concept	Measure
Electoral political participation	► Voted in the last local, national or European election (1 = yes; 0 = no)	0 to 1 → standardized
Informal political participation	Index of informal political participation: ► Volunteered for a charity/campaign organization (1 = yes; 0 = no) ► Boycotted or bought certain products for political, ethical or environmental Reasons (1 = yes; 0 = no) ► Taken part in street protests or demonstrations (1 = yes; 0 = no) ► Joined a youth organization (1 = yes; 0 = no)	0 to 4 → standardized
Online political participation	Index of online political participation: ► Posted opinions online or on social media about a political or social issue (1 = yes; 0 = no) ► Used hashtags or changed your profile picture to show support for a political or social issue (1 = yes; 0 = no)	0 to 2 → standardized

Model A establishes baseline effects by including gender, cohort (Millennials vs. Gen Z), family political discussion, socioeconomic status (parental education and household financial situation¹), and demographic controls, allowing comparison of SES and gender effects across participation types. Model B extends this specification by adding interactions between gender and SES, testing whether the influence of family resources differs across participation modes and whether such differences are particularly pronounced among young women. Model C focuses specifically on online participation, introducing interactions between cohort and family political discussion, as well as between cohort and SES, to assess whether “digital nativity” moderates the mechanisms of political socialization and resource effects across generations.

All models are estimated using survey probability weights. Standard errors are clustered at the country level to account for within-country correlation in the error term. As a robustness check, I re-estimate the models using multilevel specifications with random intercepts for countries (instead of country fixed effects); substantive conclusions and the pattern of coefficients are unchanged.

¹ Parental education and perceived financial situation were both retained as SES indicators. Although they are moderately associated ($\chi^2 = 714.71, p < 0.001$; Cramer's $V = 0.147$), the correlation is not strong enough to suggest redundancy. Therefore, each captures a distinct dimension of socioeconomic status—long-term educational background versus current material conditions.

Results

Descriptives

Across all three forms of political participation, women report higher average levels of engagement than men (Table 3). For formal participation, women's mean score exceeds men's, although the difference is modest. The gap is more pronounced in informal participation, where women report greater involvement than men. Online participation follows a similar pattern, with women again participating more than men.

Effect size estimates confirm that these gender gaps, even if consistent, are substantively small (Cohen's $d=0.16$ for formal, 0.11 for informal, and 0.11 for online participation) so that gender differences are statistically visible but of limited practical magnitude. These results suggest that variation in political participation is unlikely to be driven by gender alone, pointing instead to the potential importance of socioeconomic status, political discussion, and generational dynamics which are factors examined in the regression models.

At the same time, the descriptive patterns reveal some distinctions. Gender gaps are largest for informal participation, consistent with prior research highlighting women's greater involvement in community and cause-oriented activism. Online participation shows smaller but persistent gender differences, which is consistent with arguments that digital spaces may lower barriers to engagement, though gender gaps remain modest. Electoral participation, by contrast, is the most gender-balanced. Variation across individuals also differs by type: informal participation displays the greatest spread of responses ($SD \approx 0.92$), while formal participation is the most uniform ($SD \approx 0.50$).

Finally, Table 9 in the Appendix presents gender gaps in participation by country and regional cluster, revealing meaningful cross-national heterogeneity that contextualizes the aggregate findings. Women's participation advantage in formal politics is most pronounced in Central-Eastern and Southern European countries, including Romania (+0.19), Bulgaria (+0.18), Croatia (+0.18), and Portugal (+0.15), while it is minimal or absent in several Northern and Western European contexts such as Sweden (+0.00) and Hungary (+0.01). Informal participation shows the greatest cross-national variation, with particularly large women's advantages in Greece (+0.34), Latvia (+0.22), and Spain (+0.19), but reversed gaps in Bulgaria (−0.10) and Luxembourg (−0.08). Online participation reveals a distinctive regional pattern: women's advantage is consistent and sizeable in Southern and Nordic countries but is near-zero or reversed in several Central-Eastern European contexts, including Romania (−0.09), Croatia (−0.06), Slovakia (−0.05), and Slovenia (−0.05). This suggests that the reconfiguration of gender gaps in digital spaces does not operate uniformly

Table 3 Mean levels of political participation (Formal, Informal, Online) by gender

Gender	Electoral mean (SD)	Informal mean (SD)	Online mean (SD)	<i>N</i>
Male	0.450 (0.498)	0.788 (0.894)	0.454 (0.638)	8,194
Female	0.530 (0.499)	0.888 (0.943)	0.528 (0.705)	8,356
Total	0.489 (0.500)	0.836 (0.920)	0.490 (0.672)	16,550

and may be conditioned by macro-level factors such as welfare regime type, institutional trust, and the cultural legitimacy of expressive political engagement (Grasso & Giugni, 2021).

Young Women Ahead, Millennials in the Polls, Gen Z Online: Main Effects on Political Participation

The regression results reveal that gender, socioeconomic resources, and generational cohort shape patterns of youth political participation across Europe (Fig. 1 and Table 10 in the Appendix).

Consistent with HP1, gender emerges as a robust and statistically significant predictor across all three forms of participation. Women are associated with scores approximately 0.13–0.15 standard deviations higher than men on standardized indices of electoral, informal, and online engagement. While the magnitude of these coefficients is modest, reflecting the multi-determined nature of political behavior, their consistency across all three participation modes indicate that that gender is a structuring feature of youth political engagement. These findings challenge traditional narratives of male dominance in political activity and aligns with recent scholarship documenting the civic and digital activism of young women.

Turning to socioeconomic status, the results provide mixed support for HP2a. Parental education shows a modest positive association with electoral and informal participation, particularly for respondents with tertiary-educated parents ($\beta=0.101$ and 0.148) though these effects are not uniformly strong. Notably, the association between parental education and online participation is negligible ($\beta=0.037$), suggesting that digital engagement is less structured by intergenerational educational transmission. Perceived financial situation exhibits a more pronounced pattern: youth

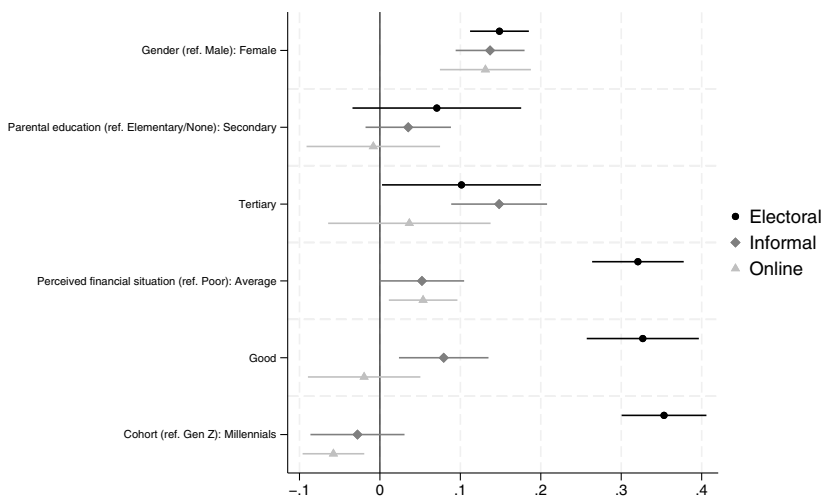


Fig. 1 Main effects of gender, SES, and cohort on youth political participation across Europe

from households with average or good financial standing are substantially more active in electoral politics ($\beta \approx 0.32$, $p < 0.001$), while the associations with informal and online participation are considerably smaller and statistically weak. This differentiation aligns with HP2a: more traditional forms of participation remain linked to socioeconomic resources, while online engagement shows attenuated SES stratification, possibly because digital platforms lower material and organizational barriers to entry.

Finally, Millennials and Gen Z differ in their participation patterns: Millennials are more associated with electoral politics than Gen Z ($\beta = 0.353$, $p < 0.001$), underscoring stronger orientation toward institutionalized forms of engagement. By contrast, Millennials show lower online participation relative to Gen Z ($\beta = -0.058$, $p < 0.01$), while informal participation shows negligible generational difference. This pattern suggests that Gen Z, often described as “digital natives,” are somewhat more inclined toward online political action, whereas Millennials retain stronger ties to electoral political institutions.

These observed cohort differences should, however, be interpreted with caution: given the cross-sectional design of this study, it is not possible to disentangle cohort-specific effects from age or life-course influences. The patterns observed may reflect the different life stages of Millennials and Gen Z at the time of the survey rather than enduring generational dispositions toward particular modes of participation.

Beyond the hypothesized variables, self-perceived minority status emerges as a significant predictor which possibly reflect well documented barriers to political participation of young people with migratory background (see recent studies by Guglielmi & Maggini, 2025; Kleer et al., 2025; Leininger & Mayer, 2025): youth identifying as a minority score substantially lower on electoral participation ($\beta = -0.204$, $p < 0.001$), and they simultaneously score higher on both informal ($\beta = +0.144$, $p < 0.001$) and online participation ($\beta = +0.109$, $p < 0.01$). This heterogeneous pattern warrants further investigation and suggests that minority-background youth are not apathetic but rather engage through alternative channels that bypass or circumvent formal institutional barriers. As well documented, their higher engagement in informal activism (boycotts, protests, volunteering) may reflect both exclusion from formal channels and a strategic orientation toward collective action outside institutions. Similarly, their higher online participation may indicate that digital platforms provide more accessible venues for political voice, reducing some of the barriers they face in face-to-face, institutionally embedded settings.

Additionally, area of residence shows consistent positive associations with electoral and online participation when living in large urban centers compared to rural areas ($\beta \approx 0.08$ – 0.10 , $p < 0.01$), pointing to the role of local political context and institutional density.

The small effect sizes observed here are consistent with research showing that political participation is multi-determined and rarely explained by single characteristics alone. From this perspective, particularly the consistent gender differences despite their modest magnitude, signals the continued structuring role of gendered socialization rather than large behavioral divides.

These findings are confirmed by multilevel specifications with random intercepts for countries (Table 11 in the Appendix). The multilevel estimates closely replicate the fixed-effects coefficients in sign, magnitude and statistical significance across

all three participation modes. The small country-level intraclass correlations ($ICC \approx 0.015\text{--}0.025$) indicate that only 1.5—2.5% of residual variance is attributable to between-country differences after accounting for individual-level covariates.

Taken together, these results highlight three key dynamics visible also from Fig. 1: (1) women's advantage in engagement across modes, (2) the attenuated role of socioeconomic resources in online engagement compared to electoral politics, and (3) generational differentiation in participation modes (Gen Z online-oriented, Millennials electorally-oriented). These findings provide a foundation for the subsequent interaction models, which explore how gender and family discussion further shape these relationships.

Unequal Returns to Education in Online Participation: Gender $\times$ SES Interactions

The interaction models provide partial support for HP2b, which predicted that socioeconomic resources would translate differently across gender lines (Fig. 2 and Table 12 in the Appendix).

Examining gender $\times$ parental education interactions, the results reveal a statistically significant negative association between females and secondary parental education in online participation ($\beta = -0.157$, $SE = 0.070$, $p < 0.05$). This unexpected finding suggests that the pathway to online engagement may be less advantageous for young women from medium-educated families compared to men from similar backgrounds. While the interaction with tertiary education is also negative ($\beta = -0.129$), it does not reach statistical significance indicating a less robust pattern at higher educational levels. For informal and electoral participation, all gender $\times$ SES interactions are negative but non-significant, pointing to a general (though not statistically reliable) tendency for socioeconomic advantages to be associated more strongly with partici-

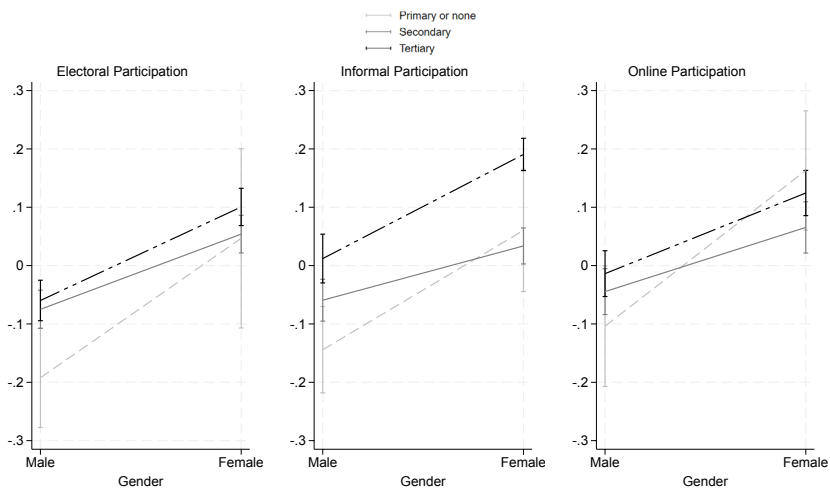


Fig. 2 Margins plot of gendered SES effects on electoral, informal and online participation

pation among men, a pattern that, if consistent, would align with HP2b but lacks decisive evidence.

A closer inspection of the coefficients clarifies why gendered moderation emerges most clearly at medium parental education. For online participation, the combined effect for women with secondary-educated parents is 0.165 ($0.263 + 0.059 - 0.157$), only modestly higher than for men (0.059), whereas at the low education end no interaction is estimated and at the high end the Female $\times$ Tertiary term is negative but not statistically significant ($\beta = -0.129$). Thus, the significant interaction at medium SES reflects the only point in the distribution where women's reduced returns to parental education are both substantively visible and statistically reliable.

While this pattern warrants a very cautious interpretation, it is consistent with the idea that medium-educated families occupy a threshold position in the transmission of cultural and digital competencies and illustrates an intersectional dynamic. These families may provide enough resources for gender differences in political socialization to materialize (such as differential exposure to or encouragement of political discussion) but may not consistently transmit the communicative and digital competencies that higher-educated households more reliably cultivate and that particularly support young women's online engagement. In other words, at medium SES, daughters may experience the gendered constraints of political socialization without benefiting from the additional cultural resources that would compensate in the digital sphere. This conditional pattern aligns with intersectional theories emphasizing how inequality operates through configurations of advantage and disadvantage rather than simple aggregation and offers one plausible explanation for why the gendered attenuation of SES advantage appears most clearly at medium education, though alternative mechanisms cannot be ruled out.

Perceived financial situation shows no statistically significant gender moderation across any participation type: the interaction terms for Female $\times$ Average and Female $\times$ Good financial standing are small in magnitude and statistically indistinguishable from zero. This suggests that perceived household economic wellbeing does not significantly modify the gender gap in participation, a finding that indicates income/financial resources operate relatively similarly across gender lines.

The interaction structure is confirmed by multilevel random-intercept models (Table 13 in the Appendix). The single significant gender $\times$ SES interaction (Female $\times$ Secondary education on online participation, $\beta = -0.157$) replicates in the multilevel specification and all non-significant interactions remain non-significant across both estimation approaches. The stability of the interaction pattern across fixed-effects and multilevel specifications indicates that the gendered moderation of SES effects is a robust feature of the data rather than a modeling artifact. The modest country-level ICC values ($\approx 0.023 - 0.025$) confirm that within-country processes dominate, supporting the conclusion that gender $\times$ SES dynamics operate similarly across national contexts.

Taken together, these findings suggest that parental education but not financial resources may interact with gender to shape online participation and that this interaction is concentrated at the medium-education threshold. These patterns are visualized in the margins plot, which illustrates how gender gaps vary across socioeconomic strata. The margins plot (Fig. 2) visualizes how gender gaps vary across socio-

economic strata, illustrating the compressed or even reversed SES advantages for women in online spaces and underscoring the importance of intersectional analysis when examining youth political engagement.

Cohort Moderation of Online Political Participation

HP3 anticipated that cohort differences would be moderated by family political discussion and socioeconomic resources, reflecting the hypothesis that Gen Z's "digital nativity" would reduce reliance on family socialization compared to Millennials. The three model specifications provide only limited and inconsistent evidence in support of this prediction (Table 14 in the Appendix).

In the baseline specification (Model 1), Millennials report significantly lower levels of online participation compared to Gen Z ($\beta = -0.061$, $SE = 0.017$, $p < 0.01$). By contrast, political discussion shows strong and statistically robust positive associations: occasionally discussing politics is associated with online participation ($\beta = 0.326$, $SE = 0.021$, $p < 0.001$), while frequent discussion is associated with substantially higher engagement ($\beta = 0.625$, $SE = 0.031$, $p < 0.001$). This consistent strength of political discussion reaffirms its role as a primary driver of digital political engagement, a finding that aligns with longstanding research on family socialization.

When interactions between cohort and political discussion are introduced (Model 2), the coefficient for Millennials who frequently discuss politics is positive ($\beta = 0.134$, $SE = 0.058$, $p < 0.05$). This result suggests that frequent family political discussion is associated with a somewhat stronger boost to online participation among Millennials than among Gen Z. However, this interpretation must be qualified: the main effect of frequent discussion remains very large (≈ 0.57), and the interaction represents only a modest increment (≈ 0.13). Moreover, the interaction with occasional discussion is negligible and non-significant ($\beta = 0.023$), indicating that attenuating effects of cohort are limited to the most intense family political environments.

Finally, the interactions between cohort and socioeconomic resources (Model 3) are small and statistically non-significant. For parental education, the coefficients are close to zero (Millennials $\times$ Secondary: $\beta = 0.007$, $SE = 0.072$; Millennials $\times$ Tertiary: $\beta = 0.048$, $SE = 0.068$) and for perceived financial situation interactions are negative but negligible in magnitude and not statistically significant (Millennials $\times$ Average: $\beta = -0.022$, $SE = 0.041$; Millennials $\times$ Good: $\beta = -0.064$, $SE = 0.041$). These results indicate that family SES does not meaningfully condition the cohort gap in online participation. This null finding is somewhat noteworthy: if Gen Z's digital nativity were substantially reducing reliance on family economic resources, we would expect to observe a negative and significant interaction (i.e., weaker SES effects for Gen Z). The absence of such an interaction suggests that SES operates relatively similarly across cohorts in shaping online engagement or, more broadly, that neither cohort is substantially dependent on family economic resources for online participation, consistent with the earlier finding (HP2a) that online engagement attenuates traditional SES stratification.

Multilevel specifications confirm the significant Millennials $\times$ Frequently discussion interaction ($\beta = 0.134$) and replicate the null cohort $\times$ SES interactions (Table 15

in the Appendix), with a stable country ICC of 0.016 across all models, indicating that cohort effects operate consistently across European contexts.

Taken together, these models suggest that family political discussion may play a modest role in explaining cohort differences in online participation (though the evidence is fragile), while socioeconomic resources show no meaningful moderating effect. HP3 therefore receives only tentative and qualified support. The most consistent and robust finding remains the strong main effect of political discussion frequency, which dominates across all specifications and cohorts, indicating that intensive family engagement with politics is the primary correlate of online political participation among European youth, regardless of generational position.

Discussion and Conclusions

This study examined how gender, family socioeconomic resources, and generational cohort shape youth political participation across formal, informal, and online arenas in Europe. Drawing on theories of political socialization and civic voluntarism, the analysis tested three hypotheses concerning gendered patterns of participation (HP1), the moderating role of socioeconomic resources (HP2a/b), and cohort differences in the influence of family discussion and SES (HP3).

The findings provide a nuanced picture of contemporary youth political engagement: (1) young women report higher levels of participation than young men across all three participation modes, challenging narratives of persistent male dominance; (2) socioeconomic resources predict electoral and informal participation more strongly than online engagement, suggesting digital platforms operate through different mechanisms; (3) family political discussion emerges as the strongest and most consistent predictor of online participation across cohorts, while cohort differences in its moderating influence are modest and fragile.

Young women report higher participation than men across all modes, but: (1) young women report higher levels of participation than men across all modes, but this apparent parity masks underlying inequalities. Women from medium-educated families derive fewer participation advantages from parental education in online spaces compared to men ($\beta = -0.157, p < 0.05$), suggesting that increased female engagement reflects reallocation into forms aligned with gendered expectations rather than substantive empowerment. Online platforms do not neutralize gendered political socialization; they channel it. Women's socialization toward expressive, symbolic activism aligns with platforms' emphasis on identity-oriented participation, enabling greater engagement than formal institutions. Yet this alignment may reinforce gendered segregation—women concentrated in symbolic channels, men in institutional ones. Inequality is transformed rather than eliminated.

A striking finding concerns minority-background youth, who show substantially lower formal engagement and higher informal participation as already known in the literature (see Guglielmi & Maggini, 2025), but also higher online participation compared to non-minority peers. This pattern does not indicate political disengagement but rather suggests reorientation toward non-institutional channels. Minority-background youth may face greater barriers to or lesser trust in formal political institu-

tions due to discriminatory experiences or underrepresentation, channeling political engagement through informal activism (boycotts, protests, community organizing) and also online platforms where institutional gatekeeping is less pronounced. This reflects participation's overlapping nature: their concentration in informal and online spaces may represent authentic voice-finding in venues perceived as responsive.

Socioeconomic resources continue to matter, but their effects are uneven. Parental education and perceived financial situation predict formal and informal participation more strongly than online engagement, in line with HP2a. However, HP2b receives only partial support. Women from medium-educated families derive fewer observable participation advantages from parental education in online participation compared to men, but these patterns are not consistently significant across modes. This highlights the persistence of gendered inequalities in translating family resources into political activity, echoing concerns raised by Janmaat and Hoskins (2022) and Schradie (2019). Rather than indicating inequality's elimination, SES attenuation for online participation reflects its transformation. When material barriers diminish, communicative competencies, digital confidence, and cultural repertoires may become particularly salient. Youth from lower-SES backgrounds gain platform access but may face constraints in communicative confidence or cultural repertoires limiting substantive voice.

The cohort analyses (HP3) reveal limited evidence that family political discussion moderates generational differences. While Millennials who frequently discuss politics appear somewhat less disadvantaged in online participation relative to Gen Z, interaction effects are modest and fragile. SES interactions with cohort are uniformly non-significant, suggesting digital nativity does not fundamentally alter family resource effects. These findings temper claims that Gen Z's online activism represents rupture with traditional socialization (Loader et al., 2014; Pickard, 2019), instead pointing to continuity across cohorts. However, differences between Millennials and Gen Z require cautious interpretation: cross-sectional design cannot disentangle cohort effects from age or life-cycle influences. Observed patterns may reflect generational positioning at survey time rather than causal effects.

Yet family political discussion emerges as the strongest predictor across all models: frequent discussion associates with $\beta=0.625$ ($p<0.001$) for online participation, overcoming education or financial effects. This contradicts narratives claiming digital platforms weaken family influence. Family political discussion may serve as a general mobilizing context enabling engagement across multiple forms simultaneously. Family political discussion may serve as a general mobilizing context enabling engagement across multiple forms simultaneously, rather than channeling youth toward specific participation types.

Taken together, the study contributes three key insights. First, online participation does not fully democratize political engagement: while it lowers some resource barriers, gendered inequalities remain embedded. Second, family political discussion emerges as more consequential than structural resources for online participation, contradicting narratives of weakened family influence in digital contexts. Third, generational differences are less pronounced than often assumed, suggesting digital platforms reconfigure rather than transform mechanisms of political socialization.

Ultimately, while digital platforms expand opportunities for expression, they do not automatically dismantle entrenched inequalities. Addressing these requires sustained attention to the socialization processes and resource distributions that continue to structure youth political participation.

Limitations and Further Research

This study also has several limitations and open questions for further research.

Regarding interpretation and generalizability, the cross-sectional design prevents causal inference and makes it difficult to separate cohort effects from age or life-cycle influences. Millennials' higher electoral participation may reflect institutional embeddedness (employment, family formation) rather than generational disposition, and longitudinal data are essential to confirm whether observed patterns persist over time. Also, the non-probabilistic online panel sampling overrepresents digitally connected youth, potentially inflating online participation levels and biasing SES and generational effect estimates.

Measures minority status are self-reported and future research must differentiate by specific forms of marginalization (immigration status, racialization, religious identity, intersectional combinations) to understand how each shapes access to and experiences within different participation spaces. Disentangling these mechanisms requires, however, more granular future research examining how different forms of marginalization (immigration status, racialization, religious identity) structure subjective experiences within different participation spaces, as discussed below. Also, only 0.61% of respondents identified outside the gender binary, precluding meaningful analysis of non-binary or queer youth.

Online political participation is a contested concept with no scholarly consensus on meaningful engagement and definitive definitions. Importantly, the exploratory factor analysis revealed substantial overlap and cross-loading between electoral, informal, and online participation categories and this empirical pattern may reflect genuine characteristics of contemporary youth engagement: participation operates through interconnected, overlapping pathways, not discrete compartments.

The present data do not directly measure communicative competencies, digital confidence, or cultural repertoires which are hypothesized mechanisms. For example, recent comparative research suggests that educational effects on public-sphere engagement are contingent on macro-level institutional contexts (Penker & Kirbiš, 2025). Education translates more strongly into political engagement in contexts with high institutional quality, low corruption, and perceived legitimacy, while effects attenuate where collective action appears ineffective or institutions lack legitimacy. The modest educational effects observed across 27 EU member states may reflect variation in institutional contexts, so stronger SES effects in Nordic/Western European contexts with high institutional trust, weaker effects in Southern/Eastern European contexts with lower institutional quality. Future comparative work examining education as a

conditional resource would strengthen understanding of when and where SES structures political participation. Also, future research explicitly examining institutional moderators would clarify whether the modest gender effects observed in the overall sample mask important contextual heterogeneity. While the present study's primary contribution is identifying robust within-country associations, cross-national institutional analysis remains an important agenda for subsequent work.

Also the role of political discussion deserves deeper investigation in future research examining what types of discussion matter most, how discussion translates into online communicative competencies, and under what institutional conditions family discussion effects are strengthened or attenuated.

Ultimately, while digital platforms expand opportunities for expression, they do not automatically dismantle entrenched inequalities. Addressing these requires sustained attention to the socialization processes and resource distributions that continue to structure youth political participation.

Appendix 1 Exploratory Factor Analysis of Political Participation Items

Methods

An exploratory factor analysis (EFA) was conducted using principal-component factorization with varimax rotation on 10 items measuring political participation (q7_1 through q7_10). The analysis included 16,107 observations and retained 3 factors based on eigenvalue criteria (eigenvalue > 1).

Descriptive Variables

The 10 participation items analyzed were:

1. q7_1: Voted in the last local, national or European election
2. q7_2: Contacted a politician about an issue
3. q7_3: Volunteered for a charity/campaign organisation (e.g. Amnesty, Greenpeace, Oxfam)
4. q7_4: Boycotted or bought certain products for political, ethical or environmental reasons
5. q7_5: Taken part in street protests or demonstrations
6. q7_6: Created or signed a petition (on paper or online)
7. q7_7: Joined a youth organisation
8. q7_8: Taken part in a public consultation (online or offline)
9. q7_9: Posted opinions online or on social media about a political or social issue
10. q7_10: Used hashtags or changed your profile picture to show support for a political or social issue

Unrotated Factor Solution

Table 4 Factor analysis results (Unrotated)

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	19.454	0.7598	0.1945	0.1945
Factor 2	11.856	0.1717	0.1186	0.3131
Factor 3	10.139	0.0575	0.1014	0.4145
Factor 4	0.9565	0.0652	0.0956	0.5101
Factor 5	0.8913	0.0263	0.0891	0.5993
Factor 6	0.8649	0.0224	0.0865	0.6858
Factor 7	0.8425	0.0073	0.0842	0.7700
Factor 8	0.8352	0.0956	0.0835	0.8535
Factor 9	0.7397	0.0147	0.0740	0.9275
Factor 10	0.7250	—	0.0725	1.000

LR test (independent vs. saturated): $\chi^2(45) = 6920.08$, $p < 0.001^*$

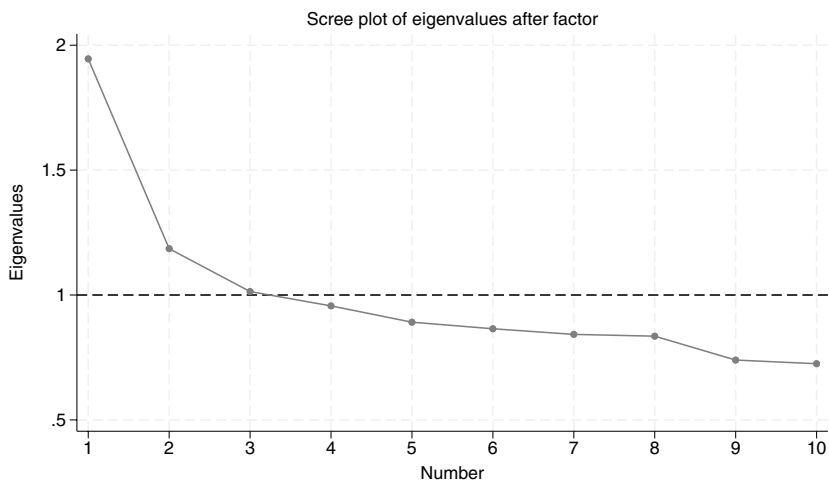


Fig. 3 Scree plot of Eigenvalues. Note: The dashed horizontal line indicates the eigenvalue threshold of 1.0, used to determine the number of factors to retain. Three factors exceeded this threshold, justifying retention of three factors in the solution

Table 5 Unrotated factor loadings and uniqueness

Variable	Factor 1	Factor 2	Factor 3	Uniqueness
q7_1	0.3774	-0.5850	0.3413	0.3989
q7_2	0.3070	0.4084	0.0360	0.7377
q7_3	0.3195	0.3389	0.4531	0.5778
q7_4	0.4978	-0.1798	-0.0704	0.7150
q7_5	0.5272	-0.0177	-0.1040	0.7109
q7_6	0.5052	-0.5140	0.1723	0.4509
q7_7	0.3191	0.4258	0.4613	0.5040
q7_8	0.4188	0.2274	0.0920	0.7645
q7_9	0.5737	0.0630	-0.3879	0.5165
q7_10	0.4684	0.1671	-0.5232	0.4790

Table 6 Rotated factor loadings and uniqueness (Varimax Rotation)

Variable	Factor 1	Factor 2	Factor 3	Uniqueness
q7_1	-0.0686	0.7719	0.0250	0.3989
q7_2	0.2708	-0.1328	0.4140	0.7377
q7_3	-0.0143	0.0776	0.6450	0.5778
q7_4	0.3700	0.3793	0.0653	0.7150
q7_5	0.4437	0.2595	0.1575	0.7109
q7_6	0.1498	0.7255	0.0174	0.4509
q7_7	-0.0040	0.0141	0.7041	0.5040
q7_8	0.2795	0.0853	0.3875	0.7645
q7_9	0.6833	0.1205	0.0455	0.5165
q7_10	0.7185	-0.0643	-0.0240	0.4790

Table 7 Factor rotation matrix (Orthogonal Varimax)

	Factor 1	Factor 2	Factor 3
Factor 1	0.7149	0.5380	0.4466
Factor 2	0.1851	-0.7615	0.6211
Factor 3	-0.6743	0.3614	0.6440

LR test (independent vs. saturated): $\chi^2(45) = 6920.08, p < 0.001$.

Rotated Factor Solution (Varimax)

Table 8 Rotated Factor Variance

Factor	Variance	Difference	Proportion	Cumulative
Factor 1	14.959	0.1128	0.1496	0.1496
Factor 2	13.831	0.1172	0.1383	0.2879
Factor 3	12.659	—	0.1266	0.4145

Interpretation and Rationale for Index Construction

The EFA revealed a factor structure inconsistent with established participation theory. Specifically, the solution exhibits:

- Cross-loading items: Multiple items load substantially on different factors, making conceptual interpretation ambiguous (e.g., q7_4, q7_5, q7_8).
- High item uniqueness: Three items demonstrate uniqueness values exceeding 0.70 (q7_2: 0.74; q7_4: 0.72; q7_8: 0.76), indicating poor factor representation.
- Theoretical misalignment: The empirical factor structure does not correspond to established theoretical distinctions between formal, informal, and online participation (Verba et al., 1995; Dalton, 2008; Theocharis & van Deth, 2018).

Decision Rule: Following recommendations prioritizing conceptual clarity and prior research in guiding measurement (Fabrigar & Wegener, 2012), indices were constructed based on established theoretical distinctions rather than the empirical factor solution. This approach:

1. Excludes high-uniqueness items: q7_2 (Contacted a politician about an issue) and q7_8 (Taken part in a public consultation) were removed due to inadequate factor representation
2. Removes the ambiguous petition item: q7_6 (Created or signed a petition on paper or online) was excluded owing to its ambiguous location across dimensions
3. Assigns remaining items by conceptual framework:
 - Electoral participation: q7_1 (voting)
 - Informal participation: q7_3, q7_4, q7_5, q7_7 (volunteering, boycotts, protests, youth organisations)
 - Online participation: q7_9, q7_10 (social media expression, digital activism)

Appendix 2 Descriptive Statistics and Gender Gaps

Table 9 Gender gaps in youth political participation by country and regional cluster (Female—Male, unstandardized means)

Regional cluster	Country	Electoral	Informal	Online
Western Europe	France	+0.02	+0.04	-0.01
	Belgium	+0.05	+0.06	+0.05
	Netherlands	+0.12	+0.07	+0.07
	Germany	+0.08	+0.02	+0.03
	Austria	+0.13	+0.14	+0.13
Nordic	Luxembourg	-0.07	-0.08	+0.27
	Denmark	+0.09	+0.19	+0.09
	Finland	+0.09	+0.17	+0.08
	Sweden	+0.00	+0.17	+0.21
Atlantic	Ireland	+0.09	+0.11	+0.21
Southern Europe	Italy	+0.13	+0.00	+0.12
	Spain	+0.13	+0.19	+0.21
	Portugal	+0.15	+0.15	+0.10
	Greece	+0.07	+0.34	+0.23
	Cyprus	+0.18	-0.02	-0.03
	Malta	+0.12	+0.04	-0.06
Central-Eastern Europe	Poland	+0.11	+0.10	+0.08
	Czech Republic	+0.09	+0.10	-0.04
	Slovakia	-0.01	-0.05	-0.05
	Slovenia	+0.09	-0.04	-0.05
	Hungary	+0.01	-0.01	+0.05
	Estonia	+0.02	+0.13	+0.11
	Latvia	+0.01	+0.22	+0.04
	Lithuania	+0.14	+0.08	+0.03
	Bulgaria	+0.18	-0.10	-0.05
	Romania	+0.19	+0.04	-0.09
Total	Croatia	+0.18	+0.19	-0.06
		+0.09	+0.09	+0.07

Appendix 3 Regression Models

Table 10 Regression models of electoral, informal and online political participation: main effects of gender, SES, and cohort. Standard errors in parentheses, Country dummies are included in the models but omitted from the table for clarity. Standard errors are adjusted for countries clusters

	Electoral	Informal	Online
Gender (ref. Male)			
Female	0.149*** (0.018)	0.137*** (0.021)	0.131*** (0.028)
Parental education (ref. Primary or noedu)			
Secondary	0.071 (0.051)	0.035 (0.026)	-0.008 (0.040)
Tertiary	0.101* (0.048)	0.148*** (0.029)	0.037 (0.049)
Perceived financial situation (ref. Poor)			
Average	0.321*** (0.028)	0.052 (0.026)	0.054* (0.021)
Good	0.327*** (0.034)	0.079** (0.027)	-0.020 (0.034)
Cohort (ref. Gen Z)			
Millennials	0.353*** (0.026)	-0.028 (0.028)	-0.058** (0.019)
Discussion about politics (ref. Never)			
Occasionally	0.328*** (0.026)	0.288*** (0.020)	0.323*** (0.022)
Frequently	0.403*** (0.030)	0.621*** (0.020)	0.623*** (0.028)
Minority background (ref. Yes)			
No	0.204*** (0.024)	-0.144*** (0.024)	-0.109** (0.033)
Occupation (ref. Working)			
Student (full-time)	0.005 (0.026)	-0.008 (0.028)	0.026 (0.019)
Other	-0.033 (0.023)	-0.081* (0.035)	0.010 (0.029)
Area of residence (ref. Rural area)			
Small/medium town	0.010 (0.027)	0.035 (0.019)	0.054* (0.021)
Large town/city	0.098** (0.033)	0.126*** (0.026)	0.081*** (0.021)
Constant	-1.023*** (0.053)	-0.298*** (0.050)	-0.374*** (0.046)
R-squared	0.120	0.071	0.060
Observations	16107	16107	16107

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 11 Multilevel regression models of electoral, informal and online political participation: main effects of gender, SES, and cohort. Standard errors in parentheses. Random intercept for country

	Electoral	Informal	Online
Gender (ref. Male)			
Female	0.148*** (0.018)	0.137*** (0.021)	0.131*** (0.027)
Parental education (ref. Primary or noedu)			
Secondary	0.069 (0.051)	0.034 (0.026)	-0.011 (0.041)
Tertiary	0.099* (0.049)	0.147*** (0.028)	0.033 (0.050)
Perceived financial situation (ref. Poor)			
Average	0.321*** (0.028)	0.052* (0.026)	0.054** (0.021)
Good	0.328*** (0.034)	0.082** (0.028)	-0.018 (0.034)
Cohort (ref. Gen Z)			
Millennials	0.354*** (0.026)	-0.027 (0.028)	-0.057** (0.019)
Discussion about politics (ref. Never)			
Occasionally	0.329*** (0.026)	0.288*** (0.020)	0.323*** (0.021)
Frequently	0.405*** (0.030)	0.623*** (0.021)	0.625*** (0.028)
Minority background (ref. Yes)			
No	0.206*** (0.024)	-0.146*** (0.024)	-0.110*** (0.033)
Occupation (ref. Working)			
Student (full-time)	0.007 (0.026)	-0.006 (0.028)	0.028 (0.019)
Other	-0.031 (0.023)	-0.079* (0.035)	0.012 (0.028)
Area of residence (ref. Rural area)			
Small/medium town	0.011 (0.027)	0.035 (0.019)	0.055** (0.021)
Large town/city	0.098** (0.032)	0.124*** (0.027)	0.081*** (0.021)
Constant	-1.008*** (0.066)	-0.389*** (0.044)	-0.375*** (0.040)
Observations	16,107	16,107	16,107
ICC	0.025	0.023	0.015

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 12 Regression models of electoral, informal and online political participation with gender $\times$ SES interactions. Standard errors in parentheses, Country dummies are included in the models but omitted from the table for clarity. Standard errors are adjusted for countries clusters

	Electoral	Informal	Online
Gender (ref. Male)			
Female	0.253** (0.068)	0.203** (0.060)	0.263*** (0.070)
Parental education (ref. Primary or noedu)			
Secondary	0.117* (0.049)	0.085* (0.037)	0.059 (0.059)
Tertiary	0.132** (0.041)	0.156** (0.044)	0.090 (0.059)
Perceived financial situation (ref. Poor)			
Average	0.323*** (0.024)	0.048 (0.024)	0.038 (0.025)
Good	0.357*** (0.038)	0.083* (0.030)	0.004 (0.035)
Gender # Parental Education (ref. Male # Primary or noedu)			
Female # Secondary	-0.110 (0.074)	-0.112 (0.064)	-0.157* (0.070)
Female # Tertiary	-0.079 (0.077)	-0.026 (0.079)	-0.129 (0.067)
Gender # Perceived financial situation (ref. Male # Poor)			
Female # Average	-0.007 (0.040)	0.007 (0.051)	0.030 (0.041)
Female # Good	-0.061 (0.035)	-0.007 (0.062)	-0.048 (0.066)
Cohort (ref. Gen Z)			
Millennials	0.352*** (0.025)	-0.028 (0.028)	-0.059** (0.019)
Discussion about politics (ref. Never)			
Occasionally	0.327*** (0.026)	0.287*** (0.019)	0.323*** (0.021)
Frequently	0.404*** (0.030)	0.620*** (0.020)	0.623*** (0.028)
Minority background (ref. Yes)			
No	0.202*** (0.023)	-0.144*** (0.024)	-0.110** (0.034)
Occupation (ref. Working)			
Student (full-time)	0.005 (0.025)	-0.008 (0.027)	0.025 (0.020)
Other	-0.033 (0.023)	-0.080* (0.035)	0.009 (0.029)
Area of residence (ref. Rural area)			
Small/medium town	0.010 (0.027)	0.035 (0.018)	0.053* (0.021)
Large town/city	0.097** (0.032)	0.125*** (0.026)	0.081*** (0.021)
Constant	-1.064*** (0.057)	-0.324*** (0.062)	-0.427*** (0.050)
R-squared	0.120	0.071	0.060
Observations	16,107	16,107	16,107

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 13 Multilevel regression models of electoral, informal and online political participation with gender $\times$ SES interactions. Standard errors in parentheses. Random intercept for country

	Electoral	Informal	Online
Gender (ref. Male)			
Female	0.254*** (0.068)	0.205*** (0.059)	0.265*** (0.070)
Parental education (ref. Primary or noedu)			
Secondary	0.116* (0.049)	0.085* (0.037)	0.058 (0.059)
Tertiary	0.130** (0.042)	0.156*** (0.044)	0.088 (0.059)
Perceived financial situation (ref. Poor)			
Average	0.324*** (0.024)	0.048* (0.024)	0.037 (0.024)
Good	0.358*** (0.038)	0.085** (0.031)	0.005 (0.035)
Gender # Parental Education (ref. Male # Primary or noedu)			
Female # Secondary	-0.111 (0.074)	-0.115 (0.063)	-0.160* (0.069)
Female # Tertiary	-0.079 (0.077)	-0.028 (0.079)	-0.131 (0.067)
Gender # Perceived financial situation (ref. Male # Poor)			
Female # Average	-0.007 (0.040)	0.007 (0.051)	0.031 (0.041)
Female # Good	-0.061 (0.035)	-0.007 (0.062)	-0.047 (0.066)
Cohort (ref. Gen Z)			
Millennials	0.353*** (0.026)	-0.027 (0.028)	-0.059** (0.019)
Discussion about politics (ref. Never)			
Occasionally	0.329*** (0.026)	0.287*** (0.019)	0.323*** (0.021)
Frequently	0.406*** (0.030)	0.622*** (0.020)	0.626*** (0.028)
Minority background (ref. Yes)			
No	0.204*** (0.024)	-0.146*** (0.024)	-0.111** (0.034)
Occupation (ref. Working)			
Student (full-time)	0.007 (0.026)	-0.006 (0.027)	0.028 (0.020)
Other	-0.032 (0.023)	-0.078* (0.035)	0.011 (0.028)
Area of residence (ref. Rural area)			
Small/medium town	0.011 (0.027)	0.034 (0.018)	0.054** (0.021)
Large town/city	0.097** (0.032)	0.123*** (0.027)	0.080*** (0.021)
Constant	-1.049*** (0.065)	-0.416*** (0.053)	-0.429*** (0.044)
Observations	16,107	16,107	16,107
ICC	0.025	0.023	0.015

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 14 Regression models of online political participation with cohort interactions. Standard errors in parentheses, Country dummies are included in the models but omitted from the table for clarity. Standard errors are adjusted for countries clusters

	(1) Online1	(2) Online2	(3) Online3
Cohort (ref. Gen Z)	0.000	0.000	0.000
Millennials	-0.061** (0.017)	-0.110* (0.041)	-0.065 (0.060)
Discussion about politics (ref. Never)			
Occasionally	0.326*** (0.021)	0.319*** (0.029)	0.325*** (0.021)
Frequently	0.625*** (0.031)	0.564*** (0.044)	0.625*** (0.031)
Gender (ref. Male)	0.000	0.000	0.000
Female	0.128*** (0.028)	0.128*** (0.028)	0.127*** (0.028)
Parental education (ref. Primary or noedu)			
Secondary	0.002 (0.034)	-0.002 (0.035)	-0.003 (0.055)
Tertiary	0.053 (0.045)	0.048 (0.045)	0.028 (0.057)
Perceived financial situation (ref. Poor)			
Average	0.055* (0.020)	0.054* (0.020)	0.067** (0.022)
Good	-0.018 (0.035)	-0.020 (0.034)	0.013 (0.044)
Minority background (ref. Yes)			
No	-0.118*** (0.031)	-0.117*** (0.031)	-0.117*** (0.031)
Occupation (ref. Working)			
Student (full-time)	0.015 (0.019)	0.011 (0.019)	0.012 (0.018)
Other	-0.003 (0.029)	-0.004 (0.029)	-0.004 (0.029)
Area of residence (ref. Rural area)			
Small/medium town	0.056** (0.019)	0.056** (0.019)	0.056** (0.019)
Large town/city	0.074*** (0.020)	0.075*** (0.019)	0.075*** (0.019)
Cohort # Political discussion (ref. Gen Z # Never)			
Millennials # Occasionally		0.023 (0.046)	
Millennials # Frequently		0.134* (0.058)	

Table 14 (continued)

	(1) Online1	(2) Online2	(3) Online3
Cohort # Parental education (ref. Gen Z # Primary or noedu)			
Millennials # Secondary			0.007 (0.072)
Millennials # Tertiary			0.048 (0.068)
Cohort # Perceived financial situation (ref. Gen Z # Poor)			
Millennials #			-0.022 (0.027)
Millennials #			-0.064 (0.041)
Constant	-0.403*** (0.050)	-0.379*** (0.055)	-0.398*** (0.052)
R-squared	0.061	0.061	0.061
Observations	16,107	16,107	16,107

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 15 Multilevel regression models of online political participation with cohort interactions. Standard errors in parentheses. Random intercept for country

	(1) Online1 (ML)	(2) Online2 (ML)	(3) On- line3 (ML)
Cohort (ref. Gen Z)			
Millennials	-0.060*** (0.017)	-0.110** (0.041)	-0.062 (0.060)
Discussion about politics (ref. Never)			
Occasionally	0.326*** (0.021)	0.319*** (0.029)	0.325*** (0.021)
Frequently	0.628*** (0.031)	0.567*** (0.043)	0.627*** (0.031)
Gender (ref. Male)			
Female	0.127*** (0.028)	0.128*** (0.028)	0.127*** (0.028)
Parental education (ref. Primary or noedu)			
Secondary	-0.001 (0.035)	-0.005 (0.035)	-0.004 (0.055)
Tertiary	0.049 (0.045)	0.045 (0.045)	0.026 (0.057)
Perceived financial situation (ref. Poor)			
Average	0.055** (0.020)	0.054** (0.020)	0.067** (0.022)
Good	-0.017 (0.035)	-0.018 (0.034)	0.013 (0.044)
Minority background (ref. Yes)			
No	-0.118*** (0.032)	-0.118*** (0.031)	-0.118*** (0.032)
Occupation (ref. Working)			
Student (full-time)	0.017 (0.019)	0.014 (0.019)	0.015 (0.018)
Other	-0.001 (0.029)	-0.002 (0.029)	-0.002 (0.029)
Area of residence (ref. Rural area)			
Small/medium town	0.057** (0.019)	0.057** (0.019)	0.057** (0.019)
Large town/city	0.074*** (0.019)	0.074*** (0.019)	0.074*** (0.019)
Cohort # Political discussion (ref. Gen Z # Never)			
Millennials # Occasionally		0.023 (0.046)	
Millennials # Frequently		0.134* (0.057)	
Cohort # Parental education (ref. Gen Z # Primary or noedu)			
Millennials # Secondary			0.004 (0.072)
Millennials # Tertiary			0.045 (0.068)

Table 15 (continued)

	(1) Online1 (ML)	(2) Online2 (ML)	(3) On- line3 (ML)
Cohort # Perceived financial situation (ref. Gen Z # Poor)			
Millennials # Average			-0.023 (0.027)
Millennials # Good			-0.063 (0.041)
Constant	-0.378*** (0.045)	-0.354*** (0.052)	-0.376*** (0.045)
Observations	16,107	16,107	16,107
ICC	0.016	0.016	0.016

Acknowledgments I thank the SISP 2025 and RN30 audiences and the anonymous reviewers whose constructive and helpful feedback significantly strengthened this paper.

Funding Open access funding provided by Università degli Studi di Milano within the CRUI-CARE Agreement. This research did not receive any specific grant.

Data Availability The data used in this study (Flash Eurobarometer 2574 – European Parliament Youth Survey) are publicly available at https://search.gesis.org/research_data/ZA7991. Replication materials are available in a GitHub repository at <https://github.com/AliceSanarico/youth-online-voice>.

Declarations

Ethical Approval This study is based exclusively on the analysis of secondary data obtained from publicly available sources. Ethical approval was obtained by the original data collectors.

Informed Consent Informed consent was obtained from all individual participants by the original data collectors at the time of data collection. The author was not involved in the data collection process.

Conflict of interest The author declares that there is no conflict of interest.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Amnå, E., & Ekman, J. (2014). Standby citizens: Diverse faces of political passivity. *European Political Science Review*, 6(2), 261–281. <https://doi.org/10.1017/S175577391300009X>
- Andolina, M. W., Jenkins, K., Zukin, C., & Keeter, S. (2003). Habits from home, lessons from school: Influences on youth civic engagement. *PS: Political Science & Politics*, 36(2), 275–280. <https://doi.org/10.1017/S104909650300221X>

- Bauer, N. M. (2020). *The qualifications gap: Why women must be better than men to win political office*. Cambridge University Press.
- Beauvais, E. (2020). The gender gap in political discussion group attendance. *Politics & Gender*, 16(2), 315–338. <https://doi.org/10.1017/S1743923X18000892>
- Bennett, W. L., & Segerberg, A. (2012). The logic of connective action: Digital media and the personalization of contentious politics. *Information, Communication & Society*, 15(5), 739–768. <https://doi.org/10.1080/1369118X.2012.670661>
- Bode, L. (2016). Political news in the news feed: Learning politics from social media. *Mass Communication and Society*, 19(1), 24–48. <https://doi.org/10.1080/15205436.2015.1045149>
- Bode, L. (2017). Closing the gap: Gender parity in political engagement on social media. *Information, Communication & Society*, 20, 587–603. <https://doi.org/10.1080/1369118X.2016.1202302>
- Boulianne, S. (2015). Social media use and participation: A meta-analysis of current research. *Information, Communication & Society*, 18(5), 524–538. <https://doi.org/10.1080/1369118X.2015.1008542>
- Boulianne, S., & Theocharis, Y. (2020). Young people, digital media, and engagement: A meta-analysis of research. *Social Science Computer Review*, 38(2), 111–127. <https://doi.org/10.1177/0894439318814190>
- Campbell, D. E., & Wolbrecht, C. (2006). See Jane run: Women politicians as role models for adolescents. *The Journal of Politics*, 68(2), 233–247. <https://doi.org/10.1111/j.1468-2508.2006.00402.x>
- Cassese, E. C., & Holman, M. R. (2018). Playing the woman card: Ambivalent sexism in the 2016 U.S. presidential race. *Political Psychology*, 39(1), 55–74. <https://doi.org/10.1111/pops.12492>
- Cella, M., & Manzoni, E. (2023). Gender bias and women's political performance. *European Journal of Political Economy*, 77, 102314. <https://doi.org/10.1016/j.ejpoleco.2022.102314>
- Christensen, H. S. (2011). Political activities on the Internet: Slacktivism or political participation by other means? *First Monday*, 16(2). <https://doi.org/10.5210/fm.v16i2.3336>
- Cicognani, E., Zani, B., Fournier, B., Gavray, C., & Born, M. (2012). Gender differences in youths' political engagement and participation: The role of parents and of adolescents' social and civic participation. *Journal of Adolescence*, 35(3), 561–576. <https://doi.org/10.1016/j.adolescence.2011.10.002>
- Dalton, R. J. (2008). *The good citizen : how a younger generation is reshaping American politics*. CQ Press.
- Dinas, E. (2010). *The impressionable years: The formative role of family, vote and political events during early adulthood*. Florence : European University Institute , EUI, SPS, PhD Thesis - Retrieved 23 May 2025, from: <https://hdl.handle.net/1814/14708>
- Dinas, E. (2014). Why does the apple fall far from the tree? How early political socialization prompts parent-child dissimilarity. *British Journal of Political Science*, 44(4), 827–852. <https://doi.org/10.1017/S0007123413000033>
- Ditonto, T. M. (2017). A high bar or a double standard? Gender, competence, and information in political campaigns. *Political Behavior*, 39(2), 301–325. <https://doi.org/10.1007/s11109-016-9357-5>
- Eagly, A. H., Wood, W., & Diekmann, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. In T. Eckes & H. M. Trautner (Eds.), *The developmental social psychology of gender* (pp. 123–174). Lawrence Erlbaum Associates.
- Ekman, J., & Amnå, E. (2012). Political participation and civic engagement: Towards a new typology. *Human Affairs*, 22(3), 283–300. <https://doi.org/10.2478/s13374-012-0024-1>
- European Parliament. (2021). Directorate General for Communication. & Ipsos European Public Affairs. European Parliament youth survey: report. Publications Office. <https://doi.org/10.2861/60428>
- Fabrigar, L. R., & Wegener, D. T. (2012). *Exploratory factor analysis*. Oxford University Press.
- Feezell, J. T. (2016). Predicting online political participation: The importance of selection bias and selective exposure in the online setting. *Political Research Quarterly*, 69(3), 495–509. <https://doi.org/10.1177/1065912916652503>
- Fox, R. L., & Lawless, J. L. (2014). Uncovering the origins of the gender gap in political ambition. *American Political Science Review*, 108(3), 499–519. <https://doi.org/10.1017/S0003055414000227>
- Galea, N., & Gaweda, B. (2018). (De)constructing the masculine blueprint: The institutional and discursive consequences of male political dominance. *Politics & Gender*, 14(2), 276–282. <https://doi.org/10.1017/S1743923X18000168>
- García-Albacete, G., & Hoskins, B. (2024). The gender gap in political efficacy: The accelerating effect of classroom discussions. *Social Forces*, 103(3), 1167–1185. <https://doi.org/10.1093/sf/soae100>
- Gibson, R., & Cantijoch, M. (2013). Conceptualizing and measuring participation in the age of the Internet: Is online political engagement really different to offline? *The Journal of Politics*, 75(3), 701–716. <https://doi.org/10.1017/s0022381613000431>

- Gladwell, M. (2010). Small change: Why the revolution will not be tweeted. *The New Yorker*. Retrieved 24 September 2025, from: <https://www.newyorker.com/magazine/2010/10/04/small-change-malcolm-gladwell>
- Graham, E. E., Tang, T., & Mahoney, L. M. (2020). Family matters: A functional model of family communication patterns and political participation. *Communication Studies*, 71(2), 262–279. <https://doi.org/10.1080/10510974.2020.1726426>
- Grasso, M. (2017). Young people's political participation in europe in times of crisis. In young people regenerating politics in times of crises (pp. 179–196). Springer International Publishing. https://doi.org/10.1007/978-3-319-58250-4_10
- Grasso, M., & Giugni, M. (2021). Intra-generational inequalities in young people's political participation in Europe: The impact of social class on youth political engagement. *Politics*, 42(1), 13–38. <https://doi.org/10.1177/02633957211031742>
- Grasso, M., & Smith, K. (2021). Gender inequalities in political participation and political engagement among young people in Europe: Are young women less politically engaged than young men? *Politics*, 42(1), 39–57. <https://doi.org/10.1177/02633957211028813>
- Guglielmi, S., & Maggini, N. (2025). Addressing migrant inequality in youth political engagement: The role of parental influences. *Politics and Governance*, 13, 9282. <https://doi.org/10.17645/pag.9282>
- Heger, K., & Hoffmann, C. P. (2019). Feminism! What is it good for? The role of feminism and political self-efficacy in women's online political participation. *Social Science Computer Review*, 39(2), 226–244. <https://doi.org/10.1177/0894439319865909>
- Hoskins, B., & Janmaat, J. G. (2024). Intergenerational transmission and the reinforcement of the political engagement gap: Identifying how university-educated parents enable their children to become more politically interested during early adolescence. *British Educational Research Journal*, 50(5), 2148–2171. <https://doi.org/10.1002/berj.4002>
- Janmaat, J. G., & Hoskins, B. (2022). The changing impact of family background on political engagement during adolescence and early adulthood. *Social Forces*, 101(1), 227–251. <https://doi.org/10.1093/sf/soab112>
- Janmaat, J. G., Hoskins, B., & Pensiero, N. (2022). The development of social and gender disparities in political engagement during adolescence and early adulthood: What role does education play? Nuffield Foundation. Retrieved 25 September 2025, from: <https://www.understandingsociety.ac.uk/research/publications/publication-557819>
- Jennings, M. K., & Niemi, R. G. (1968). The transmission of political values from parent to child. *American Political Science Review*, 62(1), 169–184. <https://doi.org/10.2307/1953332>
- Jennings, M. K., Stoker, L., & Bowers, J. (2009). Politics across generations: Family transmission reexamined. *Journal of Politics*, 71(3), 782–799. <https://doi.org/10.1017/S0022381609090719>
- Jungkunz, S., & Marx, P. (2023). Material deprivation in childhood and unequal political socialization: The relationship between children's economic hardship and future voting. *European Sociological Review*, 40(1), 72–84. <https://doi.org/10.1093/esr/jcad026>
- Karpowitz, C. F., & Mendelberg, T. (2014). *The silent sex: Gender, deliberation, and institutions*. Princeton University Press.
- Kim, H. (2018). A cross-national examination of political trust in adolescence: The effects of adolescents' educational expectations and country's democratic governance. *Young*, 27(3), 245–278. <https://doi.org/10.1177/1103308818778439>
- Kirbiš, A., Flere, S., Friš, D., Krajnc, M. T., & Cupar, T. (2017). Predictors of conventional, protest, and civic participation among Slovenian youth: A test of the Civic Voluntarism Model. *International Journal of Sociology*, 47(3), 182–207. <https://doi.org/10.1080/00207659.2017.1335518>
- Kitanova, M. (2019). Youth political participation in the EU: Evidence from a cross-national analysis. *Journal of Youth Studies*, 23(7), 819–836. <https://doi.org/10.1080/13676261.2019.1636951>
- Kleer, P., Abendschön, S., García-Albacete, G., Núñez, L., & Sánchez, D. (2025). Voices in the margins: Exploring the link between discrimination and adolescents' political involvement. *Politics and Governance*, 13, 9309. <https://doi.org/10.17645/pag.9309>
- Krohn, M., & Selb, P. (2009). Inheritance and the dynamics of party identification. *Political Behavior*, 31(4), 559–574. <https://doi.org/10.1007/s11109-009-9084-2>
- Leininger, A., & Mayer, S. J. (2025). Unequal participation among youth and immigrants: An overview. *Politics and Governance*, 13, 10364. <https://doi.org/10.17645/pag.10364>
- Lello, E., & Bazzoli, N. (2023). Youth political participation and inequalities: comparing European countries and different repertoires of engagement. *De Europa*, V. 6 N. 2. <https://doi.org/10.13135/2611-853X/7368>

- Loader, B. D., Vromen, A., & Xenos, M. A. (2014). The networked young citizen: Social media, political participation and civic engagement. *Information, Communication & Society*, 17(2), 143–150. <https://doi.org/10.1080/1369118X.2013.871571>
- McIntosh, H., Hart, D., & Yo uniss, J. (2007). The influence of family political discussion on youth civic development: Which parent qualities matter? *PS: Political Science & Politics*, 40(3), 495–499. <https://doi.org/10.1017/s1049096507070758>
- Mendes, K., Ringrose, J., & Keller, J. (2019). *Digital feminist activism: Girls and women fight back against sexism*. Oxford University Press.
- Neundorff, A., & Niemi, R. G. (2014). Beyond political socialization: New approaches to age, period, and cohort analysis. *Electoral Studies*, 33, 1–6. <https://doi.org/10.1016/j.electstud.2013.06.012>
- Ojeda, C., & Hatemi, P. K. (2015). Accounting for the child in the transmission of party identification. *American Sociological Review*, 80(6), 1150–1174. <https://doi.org/10.1177/0003122415606101>
- Oser, J., Hooghe, M., & Marien, S. (2013). Is online participation distinct from offline participation? A latent class analysis of participation types and their stratification. *Political Research Quarterly*, 66(1), 91–101. <https://doi.org/10.1177/1065912912436695>
- Penker, M., & Kirbiš, A. (2025). Education for future? Investigating the role of education in explaining active green engagement – A multilevel moderated mediation analysis. *Sustainable Futures*, 9, 100608. <https://doi.org/10.1016/j.sfr.2025.100608>
- Pensiero, N., & Janmaat, J. G. (2025). ‘Why do women develop lower levels of political interest? Examining the influence of education, family socialisation and adult roles.’ *Acta Politica*, 60, 723–758 <https://doi.org/10.1057/s41269-024-00349-3>
- Pickard, S. (2019). Politics, protest and young people. Palgrave Macmillan UK. <https://doi.org/10.1057/978-1-137-57788-7>
- Quintelier, E. (2013). Engaging adolescents in politics. *Youth & Society*, 47(1), 51–69. <https://doi.org/10.1177/0044118x13507295>
- Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, 57(4), 743–762. <https://doi.org/10.1111/0022-4537.00239>
- Sanbonmatsu, K. (2003). Gender-related political knowledge and the descriptive representation of women. *Political Behavior*, 25(4), 367–388. <https://doi.org/10.1023/b:pobe.0000004063.83917.2d>
- Schradie, J. (2019). *The revolution that wasn't: How digital activism favors conservatives*. Harvard University Press.
- Stattin, H., Russo, S., & Kim, Y. (2021). Projection bias and youth's and parents' perceptions of their joint political discussions. *Journal of Family Communication*, 21(2), 127–137. <https://doi.org/10.1080/15267431.2021.1910513>
- Theocharis, Y. (2015). The conceptualization of digitally networked participation. *Social Media + Society*, 1(2). <https://doi.org/10.1177/20563305115610140>
- Theocharis, Y., & van Deth, J. W. (2018). *Political participation in a changing world: Conceptual and empirical challenges in the study of citizen engagement*. Routledge.
- Tufekci, Z. (2014). Social movements and governments in the digital age: Evaluating a complex landscape. *Journal of International Affairs*, 68(1), 1–18.
- Twenge, J. M. (2017). *IGen*. Atria Books.
- Valenzuela, S., Park, N., & Kee, K. F. (2009). Is there social capital in a social network site?: Facebook use and college students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication*, 14(4), 875–901. <https://doi.org/10.1111/j.1083-6101.2009.01474.x>
- van Ditmars, M. (2023). Political socialization, political gender gaps and the intergenerational transmission of left-right ideology. *European Journal of Political Research*, 62(1), 3–24. <https://doi.org/10.1111/1475-6765.12517>
- Verba, S., Burns, N., & Schlozman, K. L. (1997). Knowing and Caring about Politics: Gender and Political Engagement. *The Journal of Politics*, 59(4), 1051–1072 <https://doi.org/10.2307/2998592>
- Verba, S., & Nie, N. H. (1972). *Participation in America: Political democracy and social equality*. University of Chicago Press.
- Verba, S., Schlozman, K. L., & Brady, H. E. (1995). *Voice and equality: Civic voluntarism in American politics*. Harvard University Press.
- Vromen, A., Loader, B. D., Xenos, M. A., & Bailo, F. (2016). Everyday making through Facebook engagement: Young citizens' political interactions in Australia, the United Kingdom and the United States. *Political Studies*, 64(3), 513–533. <https://doi.org/10.1177/0032321715614012>
- Weiss, J. (2023). Intergenerational transmission of left-right ideology: A question of gender and parenting style? *Frontiers in Political Science*, 5. <https://doi.org/10.3389/fpos.2023.1080543>

- Wolak, J. (2020). Self-confidence and gender gaps in political interest, attention, and efficacy. *The Journal of Politics*, 82(4), 1490–1501. <https://doi.org/10.1086/708644>
- Zani, B., Cicognani, E. (2019). Young people as engaged citizens: A difficult challenge between disillusionments and hopes. In: Contucci, P., Omicini, A., Pianini, D., Sirbu, A. (Eds.), *The Future of Digital Democracy*. Lecture Notes in Computer Science, vol. 11300. Springer. https://doi.org/10.1007/978-3-030-05333-8_1

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.