Pensamiento Educativo. Revista de Investigación Educacional Latinoamericana
2023, 60(2), 1-16

Pontificia Universidad Católica de Chile
Facultad de Educación

Understanding Online Political Engagement Among Young Adolescents in 21 Countries

Entender el compromiso político en línea entre los jóvenes adolescentes de 21 países

Lies Maurissen & Ellen Claes
KU Leuven, Belgium

Abstract

The Internet and social media provide opportunities for political engagement, especially attractive for younger generations. Research on online political engagement remains inconclusive on who participates and what drives these activities. Studies are often limited to a single country sample and focus on a specific group of citizens (i.e., college students). To overcome these limitations, using high-quality survey data from 21 countries, this study shows that already at the age of 14, adolescents frequently engage in online political activities.

Multilevel analyses show that parents, as well as schools, are important socialization agents that stimulate young people to engage politically online. In addition, young people's political interest, political efficacy, and duty-based citizenship norms are strong predictors of online political engagement. Although the effect of sociodemographic characteristics is limited, online engagement has the potential to mobilize immigrant youth and adolescents with less civic knowledge into the political sphere.

Keywords: online engagement, political participation, social media, adolescents, International Civic and Citizenship Education Study (ICCS) 2016

Post to:
Ellen Claes
Parkstraat 45 box 3602
3000 Leuven, Belgium
ellen.claes@kuleuven.be
ORCID: https://orcid.org/0000-0002-1726-9837

ISSN:0719-0409 DDI:203.262, Santiago, Chile doi: 10.7764/PEL.60.2.2023.7

Resumen

Internet y las redes sociales ofrecen oportunidades para el compromiso político, especialmente atractivas para las generaciones más jóvenes. La investigación sobre el compromiso político en línea sigue sin ser concluyente respecto de quién participa y qué impulsa estas actividades. Los estudios suelen limitarse a una muestra de un solo país y se centran en un grupo específico de ciudadanos (por ejemplo, los estudiantes universitarios). Para superar estas limitaciones, utilizando datos de encuestas de alta calidad de 21 países, este estudio evidencia que, ya a los 14 años, los adolescentes participan con frecuencia en actividades políticas en línea.

Los análisis multinivel muestran que los padres, así como los colegios, son importantes agentes de socialización que estimulan a los jóvenes a participar políticamente en línea. Asimismo, el interés político de los jóvenes, la eficacia política y las normas de ciudadanía basadas en el deber son fuertes predictores del compromiso político en línea. Aunque el efecto de las características sociodemográficas es limitado, el compromiso en línea tiene el potencial de movilizar a los jóvenes inmigrantes y a los adolescentes con menos conocimientos cívicos hacia la esfera política.

Palabras clave: compromiso en línea, participación política, medios sociales, adolescentes, Estudio Internacional de Educación Cívica y Ciudadana (ICCS) 2016

Introduction

The influence of social media on political participation has been the subject of scholarly debate in recent years. Widely cited examples to demonstrate the power of social media to raise awareness, create media attention, and public support for political causes are the worldwide Occupy movement protests, the Arab Spring, the widespread online circulation of #DontShoot –following the police violence in Ferguson– and #NeverAgain, the student-led initiative calling for stricter weapon legislation (Bennett, 2012; Theocharis et al., 2015; Theocharis & van Deth, 2018; Zuckerman, 2014).

Recent studies have demonstrated that online engagement is most popular among younger age groups (Rainie et al., 2012), leading scholars to focus on the development of such behaviour in these cohorts. However, the evidence is limited to a restricted number of countries, using samples from young adults or specific groups of adolescents (i.e., college students) (Ekström & Shehata, 2017; Kahne et al., 2013; Keating & Melis, 2017; Vromen et al., 2016; Xenos et al., 2014). It remains essential to expand research regarding the context in which online political engagement is studied to come to a better understanding of who engages in this emerging form of political action.

In this paper, we aim to overcome these limitations in a comparative study using high-quality survey data from representative samples of 21 countries of the International Civic and Citizenship Education Study (ICCS) 2016 (Schultz et al., 2018). We focus on a very young age group, i.e., 14-year-olds, to clarify if such forms of engagement are already popular among adolescents who are not yet engaged in other, more traditional, forms of participation, due to legal restrictions (e.g., voting) or limited resources and skills (e.g., public speech, donating to a political campaign). Including data from 21 countries of different continents in multilevel analyses allows to control for country differences.

Political socialization literature shows that the development of a political identity starts at a very early age, with long-lasting effects across the lifespan (Flanagan et al., 2007). If youth engage in an emerging type of political participation, it will most likely affect their behaviour in the future. We measure how frequently online political participation is used by young adolescents and which antecedents predict such engagement.

Participation in the age of Internet and social media

The rise of the Internet has expanded how citizens express themselves politically. Earlier studies focus on actions supported by the Internet (Hirzalla & Van Zoonen, 2011; Marien et al., 2010), such as online petitions, online campaigning, or sending emails to elected officials. These actions already existed before the Internet age and have been complemented with a low-cost online equivalent (Theocharis & van Deth, 2018). Research has indicated that these actions blend with more traditional forms of participation and should not be investigated as a distinct mode of action (Gibson & Cantijoch, 2013). Other researchers have concentrated on the mobilization effect of online activities, looking at the effects of social media use on offline political behaviour, such as activism or voting (Boulianne, 2009; Gil de Zúñiga et al., 2012; Kahne et al., 2013; Kim et al., 2017; Theocharis & Quintelier, 2016; Valeriani & Vaccari, 2016). Social media are specially used for news consumption and socializing but they can be instigators of other for non-conventional forms of participation, like protest (Valenzuela, 2012). However, Chayinska and colleagues, using panel data, did not find support for online spillover effects to offline participation. On the contrary, they found that offline political activities spurred online collective action (Chayinska et al., 2021).

Recently, a limited number of studies have treated online engagement, and especially the networked forms of online engagement, as a distinct mode of political participation (Valeriani & Vaccari, 2016; Vromen et al., 2016; Xenos et al., 2014). The results indicate that online political participation is most popular among younger age groups and might have the potential to draw new citizens into engagement. However, the results are limited in scope. Existing studies use a specific group of citizens, like university students, focus on the United States, or discuss results in a limited set of countries using various age groups (Carlisle & Patton, 2013; Rains & Brunner, 2015; Feezell, 2016; Conroy et al., 2012; Kahne et al., 2013; Smith, 2013; Xenos et al., 2014; Valeriani & Vaccari, 2016; Ekström & Shehata, 2018). A comprehensive and comparative study of the online political behaviour of adolescents is still scarce.

In this study, we focus on engagement using the networking function of the Internet and social media, defined by Theocharis (2015) as

> a networked media-based personalized action that is carried out by individual citizens with the intent to display their own mobilization and activate their social networks in order to raise awareness about, or exert social and political pressure for the solution of, a social or political problem (p. 6).

Examples are posting self-created content online, sharing other people's content within one's network, or commenting on political or social issues online. Additionally, we look at the low cost of accessing political information online, referred to as the news gathering function of the Internet (Carlisle & Patton, 2013; Ekström & Shehata, 2018). Information is abundantly available online, which lowers the cost and barriers for citizens to get the information they are looking for (Vissers & Stolle, 2014).

Why focus on young adolescents?

The choice for a young age group is based on three elements. First, 14-year-olds have never lived in an age without the Internet. For young adolescents, its presence and accessibility are given (Valeriani & Vaccari, 2016). Adolescents are frequent users and early adopters of new media (Krueger, 2002), but they also use Internet and social media more often for news gathering (Kohut, 2008), as well as for political purposes, such as post personal thoughts on political issues or post links to political stories for others to read (Rainie et al., 2012).

Second, younger generations are less drawn to traditional, institutionalized forms of participation, characterized by a hierarchical structure and often requiring long-term engagement. Community-based and networked forms of engagement are more appealing to today's youth for expressing their opinions and becoming engaged (Zukin et al., 2006). This argument goes parallel with the debate about changing patterns of citizenship norms in late modern societies (Bang, 2005; Dalton, 2008), moving away from duty-based citizenship norms (such as voting and party politics) towards engaged citizenship norms (e.g., self-expressive and personalized forms of engagement). Bennett (2012) argues that the personalization of politics has changed patterns of participation, especially for younger generations. Through the activation of online social networks, citizens can express their lifestyle values more easily.

Third, investigating political participation among adolescents is generally considered to be challenging, as many participation opportunities are not yet available to them. Either the availability of the necessary resources, such as time and money (Verba et al., 1995), prevent them from taking part in participatory acts (e.g., demonstrations, donating money), or they lack the legal right to do so (e.g., voting). Longitudinal research of Kim and colleagues (2017) underlines the importance of studying online engagement during adolescence. Since the level of required skills is limited, online participation is an easy entrance point for engagement, likely to be attractive to less skillful and experienced adolescents. Political socialization theory argues that the development of a political identity starts at a very early age. Already at 14, adolescents are expected to have developed a sense of political efficacy, interest, and trust, as well as an expectation about their future political behaviour (Sherrod et al., 2010; Torney-Purta, 2001). Since youth is highly active on social network sites, they have full access to this type of political participation, considering its low entry-cost and the limited levels of required skills (Hirzalla & Van Zoonen, 2011; Ekström & Shehata, 2018). Additionally, online engagement does not require people to physically be somewhere to participate (Earl & Kimport, 2011), which allows young adolescents, not always in charge of how their time is spent, to engage in political activities. This creates a unique opportunity to study political participation during adolescence, in contrast to research on other forms of political participation (e.g., partisanship or activism) that usually builds on adolescents' intentions of showing such behaviour in the future.

Work of Xenos and colleagues (2014) and Vromen and colleagues (2016), studying political engagement on Facebook with data from the US, Australia, and the UK (age 16-29), provides evidence for the low threshold for young people to become politically engaged online. Only 27% of respondents have never engaged in what they refer to as proactive political acts (i.e., commenting, posting links, encouraging others to act). The antecedents predicting who engages in such activities on Facebook are in line with other forms of political participation. Important determinants are political attitudes, as well as citizenship norms.

Vromen and colleagues (2016) also find that experiences at home and, to a lesser extent, in school matter. However, a limited concept of citizenship education via schools is used in their research, focusing only on digital literacy skills. This raises questions about other types of citizenship education, such as classroom discussions on political topics, or active participation at school, which are significant predictors for various types of offline future political participation, such as voting, party membership, or activism (Torney-Purta et al., 2001; Sherrod et al., 2010; Díaz, 2014; Disi & Mardones, 2021).

This paper, therefore, contributes to the ongoing debate by looking at a young age group, i.e., 14- year-old students, in 21 countries. Such comparative results, using recent and high-quality data, will allow us to make stronger claims about the levels of online political engagement in adolescence and what predicts this behaviour. These findings will have an impact on researchers' expectations about citizens' political behaviour in the future when current adolescents become adults. The international scope and diversity of samples included in the data allow us to make claims that go beyond a single nation or group of countries. The following research questions will be addressed in the analyses:

- RQ1: How frequently is online political engagement used by adolescents across counties?
- RQ2: What predicts online political engagement at this age?

Data and method

Data

The data used for the analyses come from the International Civic and Citizenship Education Study (ICCS) 2016 (Schulz, Ainley et al., 2018). 21 countries are included in the analyses: Belgium (Flanders), Bulgaria, Chile, Taiwan, Colombia, Croatia, Denmark, the Dominican Republic, Estonia, Finland, Italy, Latvia, Lithuania, Malta, Mexico, the Netherlands, Norway, Peru, the Russian Federation, Slovenia, and Sweden. A stratified two-stage probability sample design was used. In a first stage, schools are samples with a probability proportional to their size. In a second stage, one class of grade 8 (all students) was randomly selected. Rigorous procedures were followed at every stage of the study, preserving the quality of the data and ensuring comparability across countries.

Since the data is clustered, students in schools and schools in countries, multilevel analyses are used (Heck & Thomas, 2015).

Sampling weights are used to address the unequal chances of selecting a school or a student, as well as to adjust for non-responses. This leads to the calculation of a weight for each school and a weight for each student within the school for the purpose of analysis.

[1]Missing data was handled using listwise deletion of the participants with missing values resulting in a sample of 79.139 students in 3.505 schools in 21 countries. The average cluster size is 22 students at the school level and 3.768 students in each country. The scales used in the analyses come from the ICCS 2016 dataset. Item response theory (IRT) scaling methodology was used to scale the items. All scales have a mean of 50 and a standard deviation of 10[2].

Measures

Our dependent variable in the multilevel regression analyses is online political engagement. Respondents were asked to indicate how frequently they engaged in: a) using the Internet to find information about political or social issues; b) posting a comment or image regarding a political or social issue on the internet or social media, or c) sharing or commenting on another person's online post regarding a political or social issue. The answer categories were: never or hardly ever, at least once a month, at least once a week, daily or almost daily.

1. On the country level, all participating countries received a weight of 1, to make sure they are accounted for equally in the analyses.
2. For more detailed information on the scales, we refer to the IEA reports on the ICCS dataset, which can be consulted via http://iccs.iea.nl/resources/publications.html

Political attitudes are powerful indicators of political participation. Especially political interest (Verba et al., 1995; Delli Carpini & Keeter, 1996) and political efficacy (Almond & Verba, 1989; Li & Marsh, 2008) are attitudes that predict participation. Political efficacy, the confidence in your ability to influence the political process, is measured using seven items asking students how well they thought they would perform several activities (very well, fairly well, not very well, not at all): e.g., 'discuss a newspaper article about a conflict between countries', or 'write a letter to a newspaper giving your view on a current issue'. Political interest is measured using a single item asking students how much they were interested in political and social issues, giving four answer options ranging from not at all interested to very interested, following recent studies on the subject (Russo & Stattin, 2016).

Citizenship norms, a shared set of expectations about citizens' role in politics (Almond & Verba, 1989; Dalton, 2008), are likely to influence political participation. The literature on changing citizenship norms argues that in contemporary democracies duty-related norms, such as voting and party politics, are declining in favour of engaged norms, driven by self-expressive values, and avoiding elite-defined forms of engagement (Dalton, 2008). However, research shows that both norms are still adhered by adolescents (Trevino et al., 2021). Consequently, we include both types of citizenship norms into the analyses. Duty-based citizenship norms are measured using six items, asking students how important they think certain behaviour is for being a good adult citizen (e.g., voting in national election, joining a political party, or learning about the country's history). Engaged citizenship norms are measured using four items (e.g., participating in a peaceful protest against laws believed to be unjust or taking part in activities to protect the environment). Answer options: very important, quite important, not very important, or not important at all.

To take political socialization into account, we look at citizenship education in schools and political discussions at home. Parents are a child's primary socializing agent (Flanagan et al., 2007). We include a single item asking students how often they talk with their parents about social or political issues (never or hardly ever, at least once a month, at least once a week, and daily or almost daily). Next to parents, schools are considered as an important source of political socialization, influencing the development of political skills and behaviour (Niemi & Junn, 1998; Verba et al., 1995; Campbell, 2012). We, therefore, include three types of citizenship education at school: civic learning opportunities during regular courses, active participation at school, and the students' perceptions about the openness of the discussion climate (e.g., teachers encourage students to express their opinions and teachers encourage students to discuss the issues with people having different opinions).

Several demographics related to political participation are included in the analyses: gender, immigration background and socio-economic status (SES). Immigration background is asking students if they or their parents are born in a different country. As 14-year-olds are often not fully aware of their parents' income level, SES is derived from three indices considering the approximate number of books at home, the occupational status, and the educational level of the parents. The three indices form a latent variable, showing adequate factor loadings in all countries. In addition, scale reliability scores are satisfactory (Schulz, Carstens et al., 2018). We also take political knowledge into account, as it is an indicator that allows for a deeper comprehension of various viewpoints and their interconnectedness, thereby facilitating a more nuanced understanding of multiple arguments (Castillo et al., 2015). Research shows that the higher the political knowledge scores, the more likely adolescents are to participate politically in the future (Galston 2001; Torney-Purta et al. 2001).

We also control for country differences regarding democratic freedom of citizens, as this might influence levels of political participation in a country, as well as how citizens become active. We include a democracy index, evaluating the freedom of citizens in each country including ten political rights indicators (e.g., free and fair elections, political pluralism, government transparency) and 15 civil liberties indicators (e.g., independent media, independent judiciary, freedom of movement). Each country receives an aggregate score, ranging from

1 to 100. Higher scores mean higher levels of democratic freedom of citizens (Puddington, 2016). We opted for the Freedom House Index because of its long-lasting existence (since 1972) and because it explicitly considers Freedom of Expression and Belief, also including the use of media: the key focus of our article.

Summary statistics of the variables can be found in Appendix 1.

Results

First, we check the internal consistency of the dependent variable. The results in table 1 demonstrate that the three items measuring online political engagement form a reliable scale (Cronbach's alpha 0.66). The underlying latent structure is examined with the use of a principal component analysis (PCA) for the full dataset, as well as for the separate countries. For the dataset including the samples of all 21 countries, the loadings of the items are .67, .84, and .83 respectively. Looking at the countries separately, the first item measuring the use of the Internet to find information about political or social issues has slightly lower loadings, ranging between .57 in Taiwan and Croatia, and .78 in Chile. For the other two items, the loadings are ranging between .77 and .92. Overall, these results are very satisfactory. We, therefore, conclude that the three items are part of a single latent component.

Table 1
Scale reliability scores and PCA for online political engagement

Cronbach's Alpha		Information	Posting	Sharing
Belgium (Flanders)	.62	.66	.84	.83
Bulgaria	.67	.69	.82	.83
Chile	.78	.76	.90	.88
Taiwan	.64	.57	.87	.85
Colombia	.63	.66	.82	.82
Croatia	.47	.53	.86	.85
Denmark	.57	.57	.87	.88
Dominican Republic	.66	.72	.80	.80
Estonia	.60	.60	.85	.84
Finland	.62	.63	.86	.87
Italy	.59	.62	.82	.82
Latvia	.76	.65	.91	.90
Lithuania	.60	.59	.85	.85
Malta	.63	.63	.85	.85
Mexico	.70	.71	.85	.84
Netherlands	.64	.64	.84	.85
Norway	.63	.63	.86	.86
Peru	.65	.72	.82	.77

Russian Federation	.63	.64	.84	.85
Slovenia	.50	.60	.81	.79
Sweden	.67	.66	.87	.86
Average	.66	.67	.84	.83

Notes: PCA = principal component analysis; Information = loading PCA 'use internet to find information about political or social issues', Posting = loading PCA 'posting a comment or image regarding a political or social issue'; Sharing = loading PCA 'sharing or commenting on another person's online post on a political or social issue'. Eigenvalue Table Average = 1.85; Explained variance pooled dataset = 61.49%.

Source: Own elaboration based on data from ICCS 2016 (Schultz, 2018).

To answer the first research question, i.e., the levels of political engagement online, we look at how often adolescents participate online using the three items included in the online political engagement scale. Table 2 shows that adolescents in all countries regularly engage in these activities. On average, 60% of respondents use the Internet to find information online at least once a month, 21% posts a comment or image online on a political or social issue, and 24% shares or comments on another person's post on a political or social issue[3]. Compared to other studies, this frequency is rather high, especially since most studies on political behaviour ask respondents if they ever engaged in a political act.

Table 2
Levels of participation for online political engagement

	Information	Posting	Sharing	N
Belgium (Flanders)	52.4	15.5	20.5	2931
Bulgaria	52.5	25.5	27.2	2917
Chile	48.7	26.1	23.9	5045
Taiwan	86.5	37.3	31.9	3945
Colombia	53.4	24.5	32.5	5461
Croatia	61.9	8.8	9.9	3889
Denmark	70.0	11.1	14.9	6008
Dominican Republic	56.8	34.1	41.3	3610
Estonia	60.7	16.0	22.9	2843
Finland	45.0	11.1	13.7	3152
Italy	60.4	21.3	23.5	3538
Latvia	73.4	23.8	27.8	3156
Lithuania	69.2	22.5	24.5	3599
Malta	50.9	16.2	17.8	3698
Mexico	54.7	30.5	28.8	5386

3. Cumulative percentage of the following three answer options: at least once a month, at least once a week, and daily or almost daily.

the Netherlands	27.1	9.2	15.1	2794
Norway	60.5	13.0	16.7	6174
Peru	60.5	37.0	38.9	5055
Russian Federation	74.1	21.0	28.0	7248
Slovenia	47.5	8.8	14.5	2840
Sweden	65.8	14.0	20.2	3189
Average	59.9	20.9	23.9	86369

Notes: levels of participation (cumulative percentage of 'at least once a month', 'at least once a week' and 'daily or almost daily'); Information = 'use internet to find information about political or social issues', Posting = 'posting a comment or image regarding a political or social issue'; Sharing = 'sharing or commenting on another person's online post on a political or social issue'.

Source: Own elaboration based on data from ICCS 2016 (Schultz, 2018).

For the second research question, i.e., what predicts online political engagement at the age of 14, we look at the results of a three-level regression model presented in table 3, with adolescents as level one, schools as level two, and countries as level three. Details on the separate models can be found in table A.2 in Appendix 2. Only 3.2% of the variance of online political engagement is at the school level. Therefore, no explanatory variables are introduced at this level. All variables, except the country statistics, are entered at the individual level. Consequently, open classroom climate and civic learning opportunities are considered as student perceptions of the situation in their school.

A remarkable result is that only 6.7% of the variance is located at the country level. This means that although the samples are from diverse contexts, i.e., European, Asian, and Latin American countries, the differences between adolescents can hardly be explained by country characteristics.

Considering the demographic characteristics of students, adolescents with a migration background are more likely to engage in online political participation than adolescents without a migration background. This goes against the general trend in political behavioural research, finding that citizens with a migration background tend to be less politically active (Celis & Erzeel, 2013). For gender, we find evidence of the traditional participatory gap: boys are more likely to engage than girls. Interestingly, we find no effect of SES on online political engagement. This challenges earlier findings indicating that inequality patterns based on SES exist for offline and online political engagement, as people with a higher SES tend to be more politically active than people with a lower SES (Vromen et al., 2016; Schlozman et al., 2012; Theocharis & van Deth, 2018; Smith, 2013).

Regarding civic knowledge, the results show that students with less knowledge participate more often. This contradicts many studies arguing that more knowledge leads to higher levels of different kinds of participation (Galston, 2001; Castillo et al., 2015). Our results indicate that this relation might be reversed for online political engagement. Despite these interesting findings, the individual background characteristics explain only 4% of the individual variance, which is very modest. Participating in online political acts is therefore not likely to be driven by these features.

Looking at adolescents' political attitudes and norms, especially political interest, seems to matter, followed by self-efficacy. Citizens who are interested in politics and who believe in their ability to make a difference are more likely to participate. Regarding citizenship norms, duty-based norms have a positive effect.

The influence of political socialization agents is as well substantial. Political discussions with parents are by far the strongest predictor of online political participation. Schooling also matters: the three types of citizenship education included in the analyses are positively related to online engagement. Active participation at school seems to matter most, followed by civic learning opportunities and classroom discussions on political or social issues. This suggests that schools are indeed a playground for practicing civic skills, which facilitates active political participation. Students who learn more about government and civic duties, who have been actively involved in school policy and who perceive their classrooms as open for political discussions engage more often in online networked forms of participation. On the country level, we can see that the democracy index is not significantly related to online political participation.

In sum, we can conclude that political interest, political efficacy, and duty-based citizenship norms are significant predictors of online political participation during adolescence across countries. The strong relation between political interest and online engagement is in line with earlier findings. Keating and Melis (2017) even suggest that this is the principal driver of online engagement. However, our findings suggest that the influence of socialization agents, i.e., parents and schools, is stronger than the influence of students' political interest on online political engagement. Taken together, our independent variables explain 22.3% of the variation between students for online political engagement, which is substantial.

Table 3
Results multilevel regression model predicting online political engagement

	β	(e)	
Demographics			
Gender (girl=1)	-0.030	(0.008)	***
Immigration background (yes=1)	0.031	(0.007)	***
SES	0.024	(0.015)	
Civic knowledge	-0.097	(0.010)	***
Incremental R^2 individual level	*0.009*		
Political attitudes – norms			
Political interest	0.143	(0.014)	***
Self-efficacy	0.081	(0.006)	***
Duty-based norms	0.035	(0.009)	***
Engagement norms	0.000	(0.007)	
Incremental R^2 individual level	*0.143*		
Political socialization			
Political talks at home	0.251	(0.015)	***
Civic learning at school	0.052	(0.006)	***
Participation at school	0.116	(0.008)	***
Classroom discussions	0.052	(0.007)	***
Incremental R^2 individual level	*0.223*		

Country statistics		
Democracy index	-0.231	(0.132)
Total R^2 individual level	*0.223*	
Total R^2 country level	*0.053*	
N students	*79139*	
N schools	*3505*	
N countries	*21*	

Notes: entries are standardized coefficients with standardized errors in parentheses; Significance level: *** $p<0.001$. **Unconditional model:** Variance*:* individual level=90.364 – school level=3.260 – country level=6.686; AIC: 636545; ICC school level=0.032 – ICC country level=0.067. **Final model:** Variance: individual level=70.614 – school level=1.869 – country level=4.114; AIC: 563273; ICC school level=0.019 – country level=0.045.

Source: Own elaboration based on data from ICCS 2016 (Schultz, 2018).

Discussion

Political participation is an ever-expanding concept. Citizens find new ways of expressing themselves politically and the rise of the Internet has created a new landmark in the field of participatory research. Many studies have looked at the relation between online engagement and other, more established modes of political participation. However, there is limited large-scale and comparative evidence of who participates online and what predicts such engagement. This article, therefore, contributes to the growing body of literature explaining engagement in online political acts, using data from 21 countries across continents.

The findings of this study indicate that online political engagement is frequently used by adolescents across countries. The predictors of online engagement are in line with studies on traditional forms of participation among adults: political interest, political efficacy, and duty- based citizenship norms are related to participation. Additionally, parents and schools influence to a large extent how politically active students are online. Talking to parents about political issues is the strongest predictor of online political engagement, followed by citizenship education. Active participation during the impressionable years within the polity of the school (Flanagan et al., 2007) steers political engagement outside the school. Also learning about topics related to citizenship and politics, as well as discussions on political and social issues within the classroom, stimulate engagement.

Although the results indicate that demographic characteristics matter only to a small extent for explaining online political engagement, opportunities might be created for specific types of adolescents to voice their concerns and engage in politics. Adolescents with a migration background participate more than youth without a migration background. Research shows that among migrants and ethnic minorities, inequalities regarding participation and representation are persistent (Celis & Erzeel, 2013). Online political engagement, therefore, shows potential for softening this gap and might give adolescents of minority groups a way to express themselves politically. The same goes for civic knowledge. If less knowledge leads to more engagement, social media might provide less advantaged students with an opportunity to become engaged.

Since the level of required skills for online engagement is limited, social media might serve as an easy entrance point for engagement, likely to be attractive to less skilful and experienced adolescents. The less politically sophisticated citizens might not feel confident enough to engage in more traditional forms of participation but feel sufficiently capable of expressing themselves in a less demanding environment, i.e., online within their social networks. This behaviour could serve as a gateway for other forms of participation when adolescents transition to adulthood, referred to as "the gateway hypothesis" (Kim et al., 2017, p. 902).

Future research should investigate whether online political participating is able to alter the long- standing participatory inequalities that several traditional modes of participation face. The research on the PEW dataset shows that 8% of the American population only engages in online political activities using social network sites, but is not active in any other type of participation (e.g., party donations, contact officials, activism, party membership). This group differs from participants in more traditional forms of action: they are younger and have lower levels of education and income. As the digital generation, who never knew a world without the Internet and social media, becomes older, the new type of political participation discussed in this paper will become more important. Large-scale surveys on political participation in all age groups should measure this online political behaviour, also outside the US. This will allow researchers to track the use of online political engagement compared to other, more traditional forms of political action.

Acknowledgements: We are grateful to Linde Stals and Maria Magdalena Isac for providing valuable feedback and editing advice. We also thank our colleagues at the KU Leuven for their helpful comments.

The original paper was received on November 14th, 2022
The reviewed paper was received on January 4th, 2023
The paper was accepted on June 2nd, 2023

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Appendix 1

Table A 1
Summary Statistics

Variable	N	Mean	SD	Min	Max	% missing	VIF
Online political eng.	79139	50.89	10.34	38.90	82.19	1.90	-
Gender	79139	0.50	0.50	0.00	1.00	0.00	1.034
Immigration background	79139	0.04	0.20	0.00	1.00	4.50	1.009
SES	79139	0.00	1.00	-3.70	2.92	0.60	1.174
Civic knowledge	79139	496.41	96.24	49.40	878.10	0.00	1.219
Political interest	79139	1.29	0.84	0.00	3.00	2.60	1.340
Self-efficacy	79139	52.50	10.39	16.59	78.42	2.70	1.349
Duty-based norms	79139	53.41	1076	9.39	80.81	1.80	1.608
Engagement norms	79139	52.12	9.69	17.60	66.98	2.20	1.477
Political talks at home	79139	1.82	0.94	1.00	4.00	1.80	1.282
Civic learning at school	79139	52.22	9.77	14.34	79.01	1.60	1.314
Participation at school	79139	50.92	9.84	28.96	78.30	1.50	1.210
Classroom discussions	79139	50.47	10.13	16.67	78.17	1.70	1.261
Democracy index	21	64.39	23.63	22	100	0.00	1.065

Note: N: number of respondents; Mean: mean value of variable; SD: standard deviation; Min: minimum value of variable; Max: maximum value of variable; % missing: percentage missing data of variable; VIF: variance inflation factor.

Source: Own elaboration based on data from ICCS 2016 (Schultz, 2018).

Appendix 2

Table A.2
Results multilevel regression model predicting online political engagement – separate models

	Uncond. Model	Model I	Model II	Model III	Model IV
Intercept	49.869	49.878	49.884	49.906	49.756
Demographics					
Gender (girl=1)	-	0.003 (0.011)	- 0.015 (0.010)	- 0.030 (0.008)***	- 0.030 (0.008)***
Immigration backgr (yes=1)		0.053 (0.010)***	0.040 (0.008)***	0.031 (0.007)***	0.031 (0.007)***
SES		0.085 (0.013)***	0.053 (0.016)***	0.024 (0.015)	0.024 (0.015)
Civic knowledge	-	0.007 (0.016)	- 0.045 (0.010)***	- 0.097 (0.010)***	- 0.097 (0.010)***
Political attitudes – norms					
Political interest			0.258 (0.018)***	0.143 (0.014)***	0.143 (0.014)***
Self-efficacy			0.151 (0.006)***	0.081 (0.006)***	0.081 (0.006)***
Duty-based norms			0.065 (0.009)***	0.035 (0.009)***	0.035 (0.009)***
Engagement norms			0.009 (0.008)	0.000 (0.007)	0.000 (0.007)
Political socialization					
Political talks at home				0.251 (0.015)***	0.251 (0.015)***
Civic learning at school				0.052 (0.006)***	0.052 (0.006)***
Participation at school				0.117 (0.008)***	0.116 (0.008)***
Classroom discussions				0.052 (0.007)***	0.052 (0.007)***
Country statistics					
Democracy index					- 0.231 (0.132)
Variance individual level	90.364	88.472	77.149	70.613	70.614
Variance school level	3.260	2.761	2.029	1.869	1.869
Variance country level	6.686	7.049	4.892	4.346	4.114
ICC school level	0.032	0.028	0.021	0.019	0.019
ICC country level	0.067	0.071	0.050	0.045	0.045
R^2 individual level		0.009	0.143	0.223	0.223
R^2 country level					0.053
N students	86384	83007	80077	79139	79139
N schools	3507	3506	3506	3505	3505
N countries	21	21	21	21	21
AIC	636546	609719	577015	563272	563273

Notes: entries are standardized coefficients with standardized errors in parentheses; all variables are centered around the grand mean; the appropriate weights were used to compensate for disproportional selection probabilities at the student and school level; Significance level: *** p<0.001.

Source: Own elaboration based on data from ICCS 2016 (Schultz, 2018).