

# Validation of the Online Political Engagement Scale in a British population survey

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**Summary.** Over the last decade, an ever increasing number of citizens have been using online media to participate in and engage with politics. Social media sites and online blogs have enabled new opportunities for interactive, user-centered political experiences. Currently, there is a general scarcity of psychometrically validated and standardized instruments that assess politically-related constructs (e.g., political engagement, political participation) in the field of political science. The main aim of the present study was to develop a valid, reliable, standardized psychometric tool to assess online political engagement among the general population. The present study examined the psychometric properties of a seven-item Online Political Engagement Scale (OPeNS) that assesses a range of political actions people engage in online during election campaigns. To develop the scale, data from the 2010 British Election Survey were used, as well as information collected from a total of 3,075 people who participated in a post-election online survey. The main findings obtained in the present study supported the unidimensional nature of the online political engagement construct given the results obtained from exploratory and confirmatory factor analyses. The OPeNS appears to be a valid and reliable instrument for assessing this phenomenon, and it may be useful in studies investigating newer patterns of online political engagement and disengagement.

**Key words:** online political engagement; psychometric assessment; representative samples; British Election Study

## Validació l'Escala de Compromís Polític en línia en un estudi de la població britànica

**Resum.** Durant l'última dècada, un nombre cada vegada més gran de ciutadans han estat utilitzant els mitjans de comunicació en línia per participar i comprometre's amb la política. Les xarxes socials i blocs en línia han permès noves oportunitats per a experiències polítiques interactives, centrats en l'usuari. Actualment, hi ha una escassetat general d'instruments psicòmètrics estandarditzats i validats que avaluen constructes relacionats amb la política (per exemple, el compromís polític, participació política) en el camp de la ciència política. L'objectiu principal d'aquest estudi era desenvolupar una eina vàlida, fiable i estandarditzada per avaluar la participació política en línia entre la població general. El present estudi va examinar les propietats psicòmètriques d'una escala de set ítems, l'Escala de Compromís Polític en línia (Online Political Engagement Scale, OPeNS) que avalua un seguit d'accions polítiques en les que les persones s'involucren en línia durant les campanyes electorals. Per desenvolupar l'escala, es van utilitzar les dades de l'Enquesta d'Elecció Britànica de 2010, així com la informació recollida d'un total de 3.075 persones que van participar en una enquesta en línia després de les eleccions. Els principals resultats obtinguts en el present estudi van recolzar la naturalesa unidimensional del constructe de compromís polític en línia, donat els resultats obtinguts de les anàlisis factorial exploratòria i confirmatòria. L'OPeNS sembla ser un instrument vàlid i fiable per avaluar aquest fenomen, i pot ser útil en estudis de recerca de nous patrons de participació i no participació política en línia.

**Paraules clau:** participació política en línia; avaluació psicomètrica; mostres representatives; Enquesta d'Eleccions Britàniques

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## Introduction

Over the past two decades, there has been a growing academic interest in political engagement and participation in established democracies (Henn & Oldfield, 2016; O'Toole, 2015). Much of this scholarly interest seems to center on concerns about the declining levels of civic engagement and low electoral turnout, and on other issues such as public apathy, skepticism, cynicism and a lack of trust in politics (Dalton, 2008). New media are frequently seen as a solution to these participation and engagement problems (Macková, 2015). Notably, due to the disillusionment with traditional channels of political participation (e.g., voting, membership in conventional political parties, etc.) (Norris, 2001), an ever increasing number of citizens are now using online media to gather political information on the performance of political institutions, and they are adjusting their attitudes accordingly (Ceron, 2015). Online media provides citizens with useful information for evaluating the output of political institutions and making informed choices. However, citizens are also sensitive to how the media skews political news, and this can alter their political trust and evaluation of political institutions (Ceron, 2015). This relatively recent phenomenon has led to increased scholarly research on the impact of Internet use on political engagement (Gibson & Cantijoch, 2013; Norris, 2001), a concept that is the subject of some disagreement (Ekman & Amnå, 2012; Vaishnav & Ferreira, 2011) but that can be defined by engagement in several activities. These include (i) paying attention to news media (e.g., newspapers, magazines, television, radio, the Internet), (ii) having political knowledge or beliefs, (iii) understanding political values, and (iv) holding opinions about, and attitudes toward, political matters (Barrett & Brunton-Smith, 2014). Despite the fact that research examining the dimensionality of online political engagement is sparse, and while it is true that online political engagement encompasses seemingly disparate online activities, several studies have nonetheless suggested that the construct is unidimensional in nature (Best & Krueger, 2005; di Gennaro & Dutton, 2006; Jugert, Eckstein, Noack, Kuhn, & Benbow, 2013; Krueger, 2002; Skoric, Ying, & Ng, 2009; Zhang, Johnson, Seltzer, & Bichard, 2009).

The dynamic growth of the Internet is continuously changing the news landscape. Furthermore, social media sites (e.g., Facebook, etc.) and online blogs have offered new opportunities for interactive and user-centered political experiences (Yamamoto, Kushin, & Dalisay, 2015). In fact, the Internet has provided new opportunities for political engagement that were previously unavailable (Macková, 2015; Norris, 2001; Oser, Hooghe, & Marien, 2013). The results of studies of online political engagement have been far from conclusive, with some researchers reporting minimal or no evidence of increased political participation through the use of online channels (Boulianne, 2009) and others finding that the Internet increases both offline and

online forms of political participation (Mossberger, Tolbert, & McNeal, 2008). Furthermore, some studies suggest that the Internet attracts members of normally underrepresented groups (including women, youth and ethnic minorities) to political participation (Correa & Jeong, 2010; Mossberger et al., 2008). However, it has been argued elsewhere that the use of digital technologies merely reinforces existing gaps in political participation, and that the use of interactive services during electoral campaigns is still dominated by those with higher socioeconomic status, educational attainment, and social capital (Prior, 2007).

In the present study, the aim was to develop a valid and reliable standardized psychometric instrument to assess online political engagement among the general population, a goal that emerges from a three-fold motivation. Firstly, individuals and groups are now using the Internet more regularly on a daily basis for many different purposes, and online political engagement is one activity that has capitalized on using this medium (Vissers & Stolle, 2013). Secondly, politically engaged individuals tend to use online media more than those who are not politically engaged (Bimber, Cunill, Copeland, & Gibson, 2015; Krueger, 2002). Finally, no psychometrically validated instrument for online political engagement currently exists.

## Research into Online Political Engagement

Numerous studies focusing on the impact of Internet use on political engagement have found that online activity is connected to several politically-related behavioral outcomes (e.g., voting, contacting a politician, donating money to a political campaign, etc.). Moreover, recent studies on political engagement have shown that Internet use can positively influence political engagement (Gibson, Lusoli, & Ward, 2005; Gil De Zúñiga, Puig-I-Abril, & Rojas, 2009; Krueger, 2002; Quintelier & Vissers, 2008). Some authors claim that there is no agreement with regard to how to measure political participation on the web (Vissers & Stolle, 2013), however, but many assume that the Internet opens up opportunities for a completely new type of engagement that is not practiced in the same way offline (Schlozman, Verba, & Brady, 2010; Vitak et al., 2010).

Despite the fact that most of the existing research into online political participation has been carried out in US and the UK (Anduiza, Gallego, & Cantijoch, 2010), this phenomenon has been also explored across other countries. In Spain, Anduiza, Gallego and Cantijoch (2010) reported on the importance of the role played by Internet resources in explaining factors of political participation, results that confirmed the previous findings of research conducted mainly in the US and the UK. In Taiwan, Hsieh & Li (2014) concluded that interpersonal factors such as online civic discussions were positively associated with online political participation. After researching online political debates and environmental Internet activism, Tsaliki (2003)

reported that in Finland, the Netherlands, the UK, Spain and Greece the Internet acted as a mechanism for social and democratic change, also concluding that information and communication technologies complemented previously existing media techniques rather than displacing them.

While some fear that the distribution of news in the online environment may have resulted in societal fragmentation and displacement of community concerns, others view the online environment as a space for political re-engagement, particularly for young people (Delli Carpini, 2000). Research indicates that use of online news outlets supplements traditional news consumption (Althaus & Tewksbury, 2000). In fact, online information-seeking is positively related to community involvement, group membership, and political activity (Kwak, Poor, & Skoric, 2006; Taveesin & Brown, 2006). Likewise, online information-seeking has been linked to increases in online interactive civic messaging, which in turn ultimately result in higher levels of civic participation (Shah, Cho, Eveland, & Kwak, 2005).

A recent study provided preliminary findings on some questions related to online political engagement (Russo & Amnå, 2015). The main aim of that study was to investigate relationships between personality traits and online political engagement. However, little information was given on the psychometric properties of the items as a whole (e.g., content validity, criterion-related validity). Currently, there is a lack of psychometrically validated and standardized instruments to assess politically-related constructs in the field of political science (Albacete, 2014). Additionally, and to the best of the authors' knowledge, no previous study has focused exclusively on the development of such an instrument, and the few existing measures lack robust and critical information on their overall validity and reliability. Consequently, given the potential relevance of this construct in predicting several election-related outcomes (e.g., voting intention, actual voting behavior), as suggested by previous research (Barrett & Brunton-Smith, 2014; Norris, 2001; Van Deth, 2014), the main aim of the present study was thus to develop a valid and reliable standardized psychometric tool to assess online political engagement among the general population.

## Methods

### Participants

After deleting problematic cases with severe missing values in the data cleaning process, a final representative sample made up of 1,710 participants was obtained. The overall response rate for the post-election wave was 61%, and most of the participants were of white British ethnicity ( $n = 1558$ ; 91.1%) with a mean age of 54.5 years ( $SD=17.4$ ; range 18-97 years). Gender distribution was approximately equal, with slightly more women (53.3%;  $n=911$ ) than men (see Table 1).

### Instruments

**Sociodemographic characteristics** were assessed with variables that asked participants about their ethnicity, gender, age, marital status, housing status, the age when they finished their full-time education, educational or work-related qualifications, religion, number of people in the household, and annual household income (see Table 1).

**Frequency of media usage** related to political information was determined with the following questions: "How much time [a day] do you spend using the Internet for news or programmes about politics and current affairs?" (none, less than ½ hour, ½ hour to 1 hour, 1 to 2 hours, more than 2 hours); "How much did you use the Internet to get or exchange information about the recent general election?" (a great deal, a fair amount, not very much, not at all); "Did you make use of the Internet to get news or information about the recent general election held on May 6th?" (many times, several times, once or twice, no). (The most recent general election was May 2010 at the time of the survey),

**Online Political Engagement Scale (OPeNS).** The OPeNS indicators consisted of questions already embedded in the BES survey, rather than questions developed by the present authors. This was because the focus of our study was to investigate the psychometric properties of all the indicators used in the BES survey aimed at assessing online political engagement. The new OPeNS assessed participants' use of several Internet-related resources to engage in politics. The questions provided the following prompt to participants: 'During the election campaign did you visit any of the following websites, and if so, how frequently?' and asked them to rate seven items: 1) 'official national or local websites of the political parties'; 2) 'local candidates' websites'; 3) 'political blogs (e.g. Conservative Home, Iain Dale's Blog Spot, Lib Dem Voice, Political Betting, Labour List)'; 4) 'social networking groups (e.g. Facebook) organized around a political issue'; 5) 'online video channels (e.g. YouTube) to view official or unofficial videos about election issues, party leaders or local candidates'; 6) 'Twitter sites of parties, leaders, or local candidates'; and 7) 'news organization websites (e.g. BBC, Guardian, Daily Mail)'. Participants rated each item on the following 4-point scale: 3 = 'Many times', 2 = 'Several times', 1 = 'Once or twice', and 0 = 'Never visited'. Total online political engagement scores are obtained simply by sum of the scores for all seven questions, with a response range of 0 to 21, with higher scores indicating higher levels of online political engagement. For comparison purposes, researchers may classify participants as online politically-engaged (i.e., if the total score is  $\geq 1$ ) or non-online politically-engaged (i.e., if the score is 0 for every question).

### Procedures

This study utilized data collected for the 2010 British Election Study (BES), one of the largest and longest running social surveys in Great Britain. The BES exam-

ines why people vote at all, and how and why they vote the way they do (BES, 2015). The 2010 BES includes panel data collected over a four-year period, as well as cross-sectional data from the time of the election itself. The eligible population for this study was all individuals resident in British private households and south of the Caledonian Canal aged 18 years or older. The present study only used data collected from the post-election wave in its development of the new psychometric instrument to assess online political engagement, as the items of relevance to this instrument were included in that particular wave. As with a recently published study (i.e., Canale, Santinello & Griffiths, 2015), the present study adopted a similar approach to scale validation using secondary data.

The fieldwork for the BES cross-sectional data collection was conducted by *TNS-BMRB*, a British social research agency, from May 7 to September 5, 2010. The sampling technique utilized a multistage design consisting of five stages. The sampling unit was the parliamentary constituency. In total, 200 constituencies were selected, 149 of them in England, 29 in Scotland and 22 in Wales. The post-election wave followed up with as many participants who had taken part in the pre-election wave as possible (N=1,816), along with the addition of a top-up sample (N=3,219) in order to maintain the sample size and reduce bias due to attrition. Subsequently, a total of 3,075 participants were interviewed for the post-election wave. Of these, 1,843 participants (i.e., 60% of those interviewed) returned the self-completion questionnaire.

The post-election survey consisted of a face-to-face computer assisted interview and a mail-back paper questionnaire that included questions relating to online behavior. Following the face-to-face interview, a mail-back questionnaire was left with each participant, together with a pre-paid postal envelope. Postal reminders were sent out to participants, and both participants and interviewers were entered into several prize draws to bolster response rates. Weighting of the data was applied to ensure representativeness of the British population. The weighting was carried out in two stages. Firstly, design weights were created to account for unequal selection probabilities, and secondly, non-response weighting was applied to account for differential response between different groups. The full details regarding the sampling and procedures of the study are outlined in detail in the technical report available on the 2010 BES official website (see <http://www.britishelectionstudy.com/custom/uploads/2014/04/2010BESTechnicalReport.pdf>).

### Statistical analyses and analytical strategy

Statistical analyses comprised (i) descriptive statistics of the main sample's characteristics and (ii) a psychometric examination of the OPEnS with both IBM SPSS v.20 and Mplus v.7.2. (IBM Corp, 2011; Muthén & Muthén, 2012). The main psychometric analyses included assessment of the new scale's validity (i.e.,

construct and criterion-related) and reliability. Construct validity was investigated by performing an initial exploratory factor analysis (EFA), followed by a confirmatory factor analysis (CFA) on the seven OPEnS items. Criterion-related validity was examined via Pearson product-moment correlation coefficients between the OPEnS and the frequency of media usage variables. Finally, reliability analysis comprised the analysis of the Cronbach's alpha of the OPEnS.

## Results

### Descriptive statistics

Table 1 summarizes the sample's main socio-demographic characteristics. Approximately half of the re-

**Table 1.** Main Socio-Demographic Characteristics of the Sample

N	1.710
Gender (female, %)	911 (53.3)
Age (years) (mean, SD)	54.5 (17.4)
Ethnicity (n, %)	
White British	1.558 (91.1)
Other white background	27 (1.6)
Other	125 (7.3)
Marital Status (n, %)	
Married	872 (51)
Living with a partner	144 (8.4)
Separated (after being married)	53 (3.1)
Divorced	152 (8.9)
Widowed	219 (12.8)
Single (never married)	268 (15.7)
Refused	2 (.1)
Housing Status (n, %)	
Own	1.266 (74)
Rent	426 (24.9)
Neither	16 (.9)
Refused	2 (.1)
Age Finished full-time education (n, %)	
≤ 15 years	438 (25.6)
16 years	434 (25.4)
17 years	151 (8.8)
18 years	174 (10.2)
≥ 19 years	478 (28)
Still a full-time student at school	14 (.8)
Still a full-time student at university	19 (1.1)
Do not know	2 (.1)
Educational or work-related qualifications (yes, %)	1.310 (76.6)
Belong to religion (yes, %)	950 (55.6)
People in the household <sup>†</sup> (n, %)	
≤ 5	1.664 (98.6)
≥ 6	25 (1.4)
Annual household income <sup>‡</sup> (n, %)	
≤ £30,000	813 (56.1)
≥ £30,000	562 (38.8)
Do not know	73 (4.3)

Note: †: Variable with at least one case with missing value.

spondents were married (51%), and the majority owned their own property (74%). Participants reported having finished their full-time education at different ages, with the most commonly reported ages being 15 years of age or younger (25.6%) followed by 16 years of age (25.4%). Most participants stated that they held either an educational or work-related qualification (76.6%). The vast majority reported having five or fewer people in their household (98.6%) and an average annual household income of £30,000 or less (56.1%).

**Construct validity**

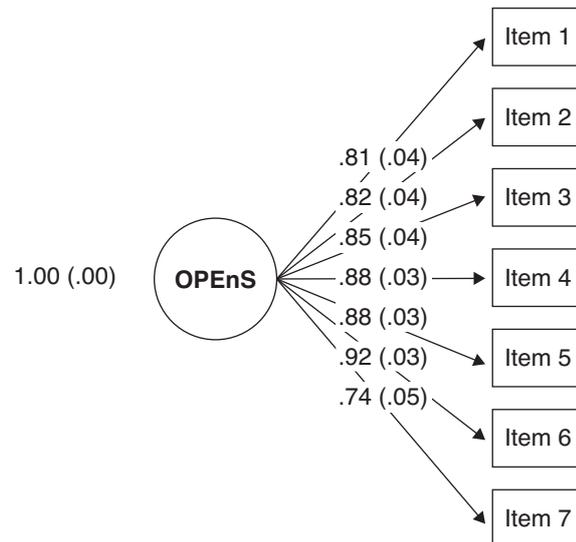
**Exploratory Factor Analysis (EFA)**

Before conducting a confirmatory factor analysis (CFA) on the seven OPEnS indicators, a preliminary psychometric analysis was conducted using exploratory factor analysis (EFA) in order to inform the factorial solution to be tested in the CFA. The EFA was conducted using the Principal Axis Factoring extraction method with Promax (oblique) rotation on all seven indicators of the OPEnS on the whole sample (n = 1,710). Accordingly, the number of components to be extracted was determined through an examination of the scree plot (Cattell, 1966) in combination with the Kaiser criterion (i.e., all factors with eigenvalues greater than one) (Kaiser, 1960). Furthermore, the factor loading thresholds adopted as the criteria to retain items were the following:  $\lambda_{ij} \geq .50$  and/or parallel loadings  $\lambda_{ij} < .20$  (Ferguson & Cox, 1993).

The appropriateness for conducting the EFA was confirmed by the Kaiser–Meyer–Olkin Measure of Sampling Adequacy (KMO = .82) and Bartlett’s Test of Sphericity ( $\chi^2 [21] = 4183.045, p < .0001$ ) results (Hair et al., 2010; Malhotra, 1999). The analysis revealed a single factor explaining 49.9% of the total variance of the construct and was extracted after five iterations (see Table 2).

**Confirmatory Factor Analysis (CFA)**

In order to address the construct validity of the OPEnS and to further verify the suitability of its proposed one-factor solution, a CFA with robust weighted least



**Figure 1.** Graphical representation of the theoretical and empirical model of the Online Political Engagement construct.

squares estimation (WLSMV) was performed on the sample (n=1,710) on the seven OPEnS indicators. These were all ordinal, and this estimator does not assume normally distributed variables and provides the best option for modelling categorical or ordered data (Brown, 2015). To assess the model’s goodness of fit, several fit indices were examined using the following recommended thresholds of interpretability, as suggested by the literature:  $\chi^2/df (1; 4)$ , root mean square error of approximation (RMSEA) (0.05; 0.08), RMSEA 90% CI with its lower limit close to 0 and the upper limit  $<0.08, p\text{-close} > 0.05$ , weighted root mean square residual (WRMR) ( $\leq 1.0$ ), comparative fit index (CFI), and Tucker–Lewis fit index (TLI) (0.90; 0.95) (Bentler, 1990; Bentler & Bonnet, 1980; Bollen & Long, 1993; Hu & Bentler, 1999; Yu, 2002). As a result, the analysis of the first-order one-factor solution provided an excellent model fit for the OPEnS, with all seven standardized factor loadings being statistically significant and above .70. More specifically,  $\chi^2 (14) = 39.7, \chi^2/df = 2.8$ ; RMSEA = 0.033 [90% CI 0.021-0.045],  $p\text{-close} = .991$ ; WRMR = .798; CFI = .987; TLI = .980 (see Figure 1).

**Criterion-related validity**

Given the known links established in the literature between political engagement and media consumption in general (Boulianne, 2009; Vitak et al., 2010; Yamamoto, Kushin, & Dalisay, 2013), it was expected that the same behavioral pattern would occur online. Hence, criterion-related validity of the OPEnS may be demonstrated in a case where a positive association is found between this measure and the aforementioned variables related to frequency of media usage. The results of this analysis are shown in Table 3. Moreover, the OPEnS was positively associated with all three criterion variables. The strongest association observed was with the variable ‘Did you make use of the Internet to get news or information about the recent general election

**Table 2.** Summary of the results from the EFA on the Online Political Engagement Scale (OPEnS) seven items (n = 1,710)

Item <sup>a</sup>	Factor Loadings	Communalities	
	Factor 1 <sup>b, c, d</sup>	Initial	Extraction
1	.67	.42	.45
2	.61	.41	.38
3	.67	.43	.45
4	.67	.47	.45
5	.73	.47	.54
6	.61	.43	.38
7	.54	.28	.29

a: Item description were omitted from the table for the sake of clarity.  
 b: Eigenvalue = 3.49.  
 c: Percentage of the Total Variance Explained = 49.9%.  
 d: Only one factor was possible to be extracted from the EFA after 5 iterations.

**Table 3.** Correlation matrix between media usage behavior the Online Political Engagement Scale (OPeNS)

Measure	Pearson's r	R <sup>2</sup>
Criterion 1	.53*	28.1%
Criterion 2	.62*	38.4%
Criterion 3	.77*	59.3%

Note:\* Correlation is significant at .01. **Criterion 1:** 'How much time do you spend using the Internet for news or programmes about politics and current affairs?'; **Criterion 2:** 'How much did you use the Internet to get or exchange information about the recent general election?'; **Criterion 3:** 'Did you make use of the Internet to get news or information about the recent general election held on May 6th?'

held on May 6th?' [ $r(1705) = .77, p < .001$ ], a very high positive association (Mukaka, 2012). These results appear to warrant the criterion-related validity of the OPeNS, as all hypothesized associations were statistically significant in the expected direction.

### Reliability

Cronbach's alpha for was estimated all seven items of the OPeNS in order to ascertain the scale's internal consistency. The results of this analysis provided satisfactory results, as the estimated coefficient was  $\alpha = .81$ . In addition, Cronbach's alpha was not enhanced by excluding any of the seven items, and inter-item correlations were relatively high in general (i.e.,  $\geq .30$ ). Furthermore, corrected item-total correlation coefficients ranged from a minimum of .44 (item 6) to a maximum of .59 (item 1), further supporting the reliability of the OPeNS.

### Discussion

The use of the Internet has dramatically facilitated individuals' access to politically relevant information and provided new possibilities for political learning, engagement, and action. Consequently, there is a need to further investigate online political behaviors, because individuals' Internet use has already taken on political significance. Furthermore, an increasing number of citizens regularly use the Internet to read and learn about government policies and actions, discuss issues with one another, and obtain information that facilitates more active participation and engagement in politics (Anduiza, Jensen, & Jorba, 2012). In the present study, the concepts of political engagement and political participation were used interchangeably, as previously published studies tend not to differentiate between these two concepts.

The purpose of the present study was to examine the psychometric properties of a newly developed instrument to assess online political engagement and fill an important gap in the current political and social science literature. The main findings obtained here supported the unidimensionality of the online political engagement construct, given the results obtained from both EFA and CFA analyses (i.e., acceptable fit indices and factor loadings) performed on the new scale. Additionally, the validity of the OPeNS at the construct, and criterion-related level was warranted, and its in-

ternal consistency was adequate. Although the findings reached by this study were robust, they are still preliminary in nature, and therefore further psychometric testing of the OPeNS is needed, especially in diverse cultural contexts, because politically-oriented behaviors and attitudes might differ in other countries.

The extant literature suggests that online political participation is distinct from offline political participation in terms of its underlying mechanisms. Accordingly, traditional offline political participation requires time and civic skills, and those resources seem less necessary when acting in an online environment (Best & Krueger, 2005), as Internet use dramatically reduces the time and effort required to engage in politics. This is because online tasks and activities may be performed much quicker than if they were carried out in the offline context (e.g., emailing elected representatives is much quicker and easier than sending them a letter) (Best & Krueger, 2005). Scholars have long thought that a participatory democracy benefits from political discussion among citizens. Some studies have supported the notion that a citizen's discussion of public affairs leads to political engagement and participation (Wyatt, Katz, & Kim, 2000), and therefore, it is understandable that people who are more politically active online generally tend to be more interested in political issues and more enthusiastic about exchanging political information (Wolfsfeld, Yarchi, & Samuel-Azran, 2015).

As has been noted before, much like in the offline world, online participatory activities attract fewer people than mere informational activities (Jensen, 2013), and some authors have argued that Internet use has the potential to advantage those already engaged in political activity (Bimber et al., 2015; Krueger, 2002). Thanks to its good psychometric properties, future studies could turn to OPeNS for quick and accurate assessments of how people engage politically online. For instance, further research should be undertaken to provide a deeper insight into the potential relationship between online political engagement and interest in politics on the one hand and the likelihood of voting on the other.

Although the present findings are promising, there are a number of potential limitations that should be taken into account. The findings concerning the validity of the OPeNS could be further explored by examining its association with other established measures of the same construct (e.g., concurrent validity). However, because the present study involved only secondary data analysis, little could be done by the present researchers in this regard. Moreover, it is necessary to ascertain the invariance of OPeNS to determine if its psychometric properties (i.e., configural, metric, and scalar invariance) hold across different countries and cultures, since previous cross-cultural studies consistently found that levels of involvement in political activities vary greatly from place to place (Van Deth, Montero, & Westholm, 2007). The present study utilized self-report data, and it is therefore prone to recall bias and social desirability bias. Only three indicators

were used to assess criterion validity (i.e., *How much time do you spend using the Internet for news or programmes about politics and current affairs?; How much did you use the Internet to get or exchange information about the recent general election?; and, Did you make use of the Internet to get news or information about the recent general election held on May 6<sup>th</sup>?*). Consequently, it would be of theoretical and methodological value to examine other relevant criteria related to political engagement (Gibson & Cantijoch, 2013). For instance, future studies might assess the extent to which online political engagement as assessed by the OPEnS can predict both voting intentions and actual voting behavior in the general population. In short, the development of the OPEnS provides a psychometric framework for the investigation of online political engagement and paves the way to future exploratory and empirical research into political engagement.

### Conclusion

The findings of the present study demonstrate that online political engagement as measured with the OPEnS represents a valid and reliable approach to assessing this engagement on several levels. Firstly, the brevity of this scale renders it suitable for limited and large-scale surveys. Secondly, although the OPEnS conceptualizes online political behavior as a unidimensional construct, its items assess a wide variety of online political engagement behaviors. Finally, the use of the OPEnS may be useful in studies investigating newer patterns of online political engagement and disengagement.

### Conflict of interest

The authors declare that they have no conflict of interest.

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