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Youth collective activism through social media: The role of collective efficacy

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Abstract

The relationship between social media use and youth's political participation has been extensively studied. However, explanations for youth's online collective political activism have been less explored. Previous studies have used the concept of internal political efficacy to examine the relationship between social media and political participation. However, this concept only explains individual political participation, while many political actions are performed collectively. Based on Social Cognitive theory this study propounds the concepts of online political self- and collective efficacy and explores their relationship to online collective political activism. Findings of a survey of members of three activist groups of a US Mid-Western university (n = 222) suggest that a correspondence exists between efficacy perceptions and the level of agency at which the political activities are performed online. Also, online collective efficacy perceptions influence individuals' participation in online collective actions, but this relationship is moderated by the perceived interdependence of the actions.

Keywords

Collective activism, collective efficacy, online political participation, political efficacy, Social Cognitive theory, social media

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The Arab spring, Occupy Wall Street, and the *Indignados* in Spain, among other social movements, have highlighted the role that social media may play as facilitator not only of individual political participation (IPP), but also of collective activism (Bennett and Segerberg, 2012). Furthermore, while social media have become the form of participation of a new citizenry (Bennett, 2008), it also seems to be the preferred means in which youth currently engage in politics in America (Smith, 2013), and organize different types of individual and collective actions around the world (Enjolras et al., 2013; Lim, 2012; Tufekci and Wilson, 2012; Valenzuela et al., 2012).

Although previous studies have explored the way in which youth's general or political uses of social media might influence their participation in individual (e.g. Bakker and De Vreese, 2011) or collective political actions (e.g. Enjolras et al., 2013), explanations for the use of social media for political purposes has been less explored. In this sense, the present study contributes from a Social Cognitive theory (SCT) perspective (Bandura, 1986, 1991, 1997) to the literature about youth's online activism by propounding the concepts of online political self-efficacy (OPSE) and online collective political efficacy (OCPE).

The concept of political efficacy (McPherson et al., 1977) has been consistently used to explain political behaviors. Internal political efficacy (IPE) was first defined as individuals' beliefs that their individual political actions can have an impact and affect a political process (Campbell et al., 1954). Further refinements and empirical evidence suggested another dimension: external political efficacy, defined as individuals' perceived responsiveness of public officials and government institutions to demands of citizens (Balch, 1974). However, IPE refers only to individuals' perceived capability of influencing their political environment through their actions, while many political activities, such as those undertaken by activist and advocacy groups are performed in coordination and in concert with others in order to attain changes at a broader level than the individual. Therefore, perceptions about individual capabilities may influence, but explain only part of, the political behaviors at the collective level of agency. SCT proposes the concept of collective efficacy to explain agency in collective pursuits.

Social media have become a dominant space where collective activism is currently constituted and negotiated (Thorson et al., 2013). Research findings suggest that social media influence participation in collective actions and have become an important alternative to other participation structures (Enjolras et al., 2013). For example, Harlow and Harp (2012) examined social network site (SNS) use by activist groups in the US and Latin America, and found that online activism might lead to offline political actions. Findings by Earl et al. (2013) illustrate how information asymmetries between activists and police might be affected by the use of Twitter during protest events. Other studies (Tufekci and Wilson, 2012; Valenzuela et al., 2012) have found a relationship between certain types of social media use (SMU) and participation in collective actions.

However, the relationship between collective political efficacy (CPE) and online collective activism is still poorly understood. Moreover, while previous research has examined the relationship between political uses of social media and the Internet, political efficacy, and individual or collective activism (Brunsting and Postmes, 2002; Kenski and Stroud, 2006; Lee, 2006; Wang, 2007), it has focused mostly on perceptions of IPE. Moreover, these studies have reported mixed findings regarding the role played by IPE.

This study contributes to the literature on this topic by examining how conflicting findings can be explained in terms of the distinction between individual and collective levels of agency. In addition, as the concept of efficacy refers to a multifaceted and dynamic belief system that operates in the different human activity domains and according to the different demands of the context-specific situations (Bandura, 1997: 43), this study propounds political efficacy concepts for the online domain and explores the relationship between them and youth's online collective activism. In doing so, it also examines how the perceived interdependence of the activity moderates the relationship between collective activism and online self and CPE perceptions.

Online activism and efficacy perceptions

Despite a growing interest in explaining the use of social media for collective political activities, a paucity of research has looked at the role played by efficacy in online collective political participation (CPP). Some studies have focused on the question of how participation in online political discussion groups might foster offline political participation (Conroy et al., 2012), how informational and social uses of SNS influences participation in protests (Valenzuela et al., 2012), and how collective political uses of social media might turn into offline social movements (Harlow, 2012).

Among the studies that have looked at the role played by political efficacy in the relationship between political uses of the Internet and online activism, Vitak et al. (2011) explored the connections between online and offline participation and found no significant influence of political efficacy on participation in either offline or on online individual actions. Hayes (2009) examined offline IPP and found support for a SCT model in which SNS use enhanced perceptions of political learning efficacy through the four sources of efficacy perceptions. Political learning efficacy predicted political knowledge, which in its turn was an antecedent of IPE. Finally, IPE was a positive predictor of political participation.

Others have considered the influence of political efficacy perceptions among the general population. Wang (2007) analyzed the role of IPE and found that neither individual political opinion expression on the Internet, nor individual participation in political campaigns were predicted by IPE. In contrast, Brunsting and Postmes (2002) found that IPE mediated the relationship between political uses of the Internet and most types of CPP, except for what they called online "hard" actions (e.g. hacking or sending email bombs).

In short, the role of political efficacy in the relationship between social media and the Internet and individual and CPP is not clear. Some studies provided evidence that efficacy perceptions influenced participation, while others did not. A resolution for these conflicting findings based on a SCT perspective is suggested in the following pages.

Levels of agency, social-cognitive theory and political efficacy

Self-efficacy is defined as "… beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997: 3). People who doubt their capacity to attain specific objectives will hardly follow the actions necessary to attain them. Self-efficacy beliefs emerge from positive reinforcement, and they are

also related to the amount of effort and perseverance individuals exert, and their resilience to adverse circumstances (Bandura, 1997: 3). Therefore, IPE should influence political behaviors, as these beliefs consist in individuals' conviction that the actions undertaken will affect and influence their political environment (Campbell et al., 1954).

How to resolve the conflicting findings? In Wang (2007) the weak reliability of the IPE measurement ($\alpha = 0.63$) might have hindered its predictive power, perhaps because some of the items used were ambiguous regarding the level of agency at which they measured efficacy beliefs. It was unclear if they measured perceptions of political capabilities for the self or for a collective of individuals similar to the respondents on some unspecified dimension. In short, the operationalization lacked face validity (Kerlinger and Lee, 2000: 668).

In addition, Wang (2007) and Vitak et al. (2011) may not have achieved sufficient face validity in their approach as they asked about efficacy perceptions in relation to politics in general. According to Bandura (1997: 48), as individuals selectively develop their competencies through different activities, perceptions about their own capabilities in each realm of functioning start to differ more from each other. Although IPE and online efficacy beliefs might be correlated, as both refer to perceived capabilities to successfully perform political actions, it is necessary to distinguish perceptions of self-efficacy for the specific activity domain, in this case, social media. SCT (Bandura, 1986, 1991, 1997) advises us to measure self-efficacy specific to the behavior under study. Accordingly, previous research (Wollman and Stouder, 1991) has found that the more accurate predictors of particular political behaviors are measures of efficacy beliefs regarding the specific mode of political participation.

Another conceptual problem is the level of agency reflected in the behaviors and related efficacy perceptions. While Verba and Nie (1987: 2) defined political participation as the set of actions that individuals perform in order to influence any government body at any level, the present study assumes a broader definition by including participation in cause-oriented activism (Norris, 2009: 641), and taking into account the level of agency of the action (i.e. the level at which individuals decide to perform a political action). In individual agency it is individuals on their own who decide when and around what issues to participate, while in collective agency it is a group of individuals that choose how and when to participate together.

However, research about political uses of the Internet has not taken this distinction into account, or has aggregated activities of different levels of agency into a single scale (Boulianne, 2009). This is a confounding practice when one considers that individual and collective political behaviors follow a different logic and have different attributes (Chong, 1991; Hardin, 1982; Olson, 1965). Collective agency goes beyond individuals' cost and benefit calculations, a characteristic more associated with individual agency; while other incentives, such as social and expressive incentives, influence participation at the collective level (Chong, 1991: 73). Research has suggested that individual and collective participation differ in terms of the motivational factors that predict them (Bäck et al., 2011). In addition, in collective participation the choices individuals make are influenced by the previous behaviors of other group members (Hardin, 1982: 132). All this strengthens the notion not only of a distinction between individual and collective activism, but also that both should be characterized as following two different processes.

Brunsting and Postmes (2002) found that political efficacy had an important role in participation in both online and offline collective political actions. However, the items used to measure political efficacy confounded individual and collective capabilities by having items at the individual and collective levels in the same scale (e.g. "People working together can change government policy" and "I don't think politicians care very much what people like me think"). Confounding of individual and collective agency might also explain Vitak et al.'s (2011) null finding as they combined participation at the individual and collective levels in a single scale (e.g. "Join or leave a group about politics", "Watch a debate on TV or online"), and included IPE as one of the predictor variables.

Online collective activism and online collective political efficacy

Although many political activities take place in concert with other people more than individually (Verba and Nie, 1987: 47), CPE has received relatively little attention. Yeich and Levine (1994) proposed the concept as a third dimension of political efficacy, and as a predictor of political participation. These authors defined CPE as perceptions of system responsiveness to collective demands for change. Collective efficacy has also been defined in terms of the combination of social cohesion and expectations of pro-social actions in neighborhoods (Browning et al., 2004; Sampson et al., 1997). Internet use for communication in a neighborhood has been assessed as affording the formation of collective efficacy (Hampton, 2010).

However, these definitions depart from the concept of collective efficacy in the context of SCT, where collective efficacy refers to a group's shared belief in its capabilities to perform specific courses of action in order to produce a desired goal (Bandura, 1997: 477). Notably, the SCT focus is on the collective capabilities perceived within the group in question rather than general perceptions of the political system or one's neighborhood. That definition is adopted here. Unlike self-efficacy beliefs, collective efficacy is a property that emerges from the group, and is different than the sum of the individual abilities, capabilities, and personal perceptions of self-efficacy.

The SCT concept of collective efficacy has been studied by organizational, education, and sports researchers. Collective efficacy has been found to be positively related to individual (Lent et al., 2006) and group performance levels (Baker, 2001; Greenlees et al., 2001; Stajkovic et al., 2009).

In this study, online collective political actions are defined as those actions performed by individuals using social media, together with other members of a group and on behalf of a group. Therefore, efficacy beliefs should operate at the collective level, through collective efficacy beliefs. It is hypothesized that individuals' beliefs that the activist group they belong to is capable of using the Internet to achieve their group objectives should be positively related with their participation in online collective political actions.

H1: OCPE will be positively related to participation in online collective political actions.

Although SCT explains agency in collective pursuits through the concept of collective efficacy, this concept is rooted in self-efficacy perceptions (Bandura, 1997). Evidence

provided by Gibson (2003) suggests that individual perceptions of self-efficacy positively influenced collective efficacy. Therefore, individual's beliefs that they can use social media for achieving their political objectives should influence their belief that the group, acting together as a whole, is capable of the same.

H2: Perceptions of OPSE will be positively related to OCPE perceptions.

Activity interdependence and collective political efficacy

Previous research has also suggested that collective efficacy influences collective participation, but under certain specific conditions. Lee (2006) compared the effect of internal, external, and CPE on a set of political attitudes and collective modes of participation in Hong Kong. Evidence indicated that the dimensions of political efficacy had a different role depending on the type of participation. Behaviors or intentions that implied acting together were strongly related to collective efficacy beliefs. On the other hand, intentions and behaviors that did not take place in concert with other individuals, despite their collective nature, were related to individual dimensions of political efficacy.

This pattern is consistent with the notion that collective efficacy operates in tasks that imply a certain degree of interdependence and collective effort in order to be successful (Bandura, 1997: 477). In a study that examined the role that task interdependence had in the emergence of perceptions of collective efficacy as a group level construct, Katz-Navon and Erez (2005) found that collective efficacy beliefs emerged as a separate construct only for the high interdependence condition. In conditions of low interdependence, collective efficacy did not predict group and individual performance, while self-efficacy did. On the other hand, in the high interdependence condition, perceptions of collective efficacy became significant predictors of team performance, while self-efficacy did not.

This suggests that collective efficacy is relevant at the group level depending on how much the activity in question implies a certain degree of interdependence. Task interdependence facilitates interaction among group members, enabling the emergence of collective efficacy beliefs. Therefore, it is expected that in modes of participation in which the interdependence is higher, perceptions about the collective capabilities should have a stronger influence than in those modes of participation that imply less interdependence. On the contrary, if the perceived interdependence is low, online political self-efficacy should have a stronger influence than OCPE.

H3: The relationship between OCPE and online CPP will be moderated by the perceived interdependence of the activity. The relationship between online collective efficacy and online CPP will be greater for those perceiving high interdependence than low interdependence.

H4: The relationship between OPSE and online CPP will be moderated by the perceived interdependence of the participation. The relationship between OPSE and online CPP will be greater for those perceiving low interdependence than high interdependence.

Methods

Sampling

This study used a purposive sample of college students who were members of a political, activist, or advocacy group at a large United States Mid-Western university. Organizations that utilized similar methods for their online activities were selected. These groups focused their online activities on Facebook pages or groups, Twitter accounts, and blogs. Members of these groups use social media to share content related to their issues of interest, to announce and organize meetings and related offline activities, and to share information and opinions. In exchange for their participation, the groups were offered a donation of US$75.00, and the ability to include questions of interest to them. The group donation was not revealed to the individual participants at the time of the survey. However, each individual received a pre-paid US$2.00 incentive.

The groups were the organizations for the Democratic and Republican parties and an environmental organization that advocates for renewable energy. Group leaders provided a current contact list of group members. The Office of the Registrar provided the local address of the students.

Data collection

Data was collected using a mixed methods approach. A survey was scheduled during a group meeting. Group members received an envelope with an informed consent letter, the cash incentive, and the questionnaire. Members who did not attend were contacted through postal mail. Multiple contacts were used in order to maximize response (Dillman, 2007), including a pre-notification letter, a reminder postcard and a replacement questionnaire. Those members who did not attend the group meeting and could not be contacted by postal mail were contacted using the email provided by the group leaders and received a US$2.00 gift card from an online retailer.

Sample characteristics

All the 64 students that attended their group meeting answered the survey. A total of 639 individuals were contacted by postal mail (the response rate was 23%). For the online version of the study a total of 132 individuals were contacted (the response rate was 8%). The overall response rate for the three modalities for all the groups was 26.58%.

Of the 222 completed surveys, 29.5% were from members of the Democratic Group (DG), 18.5% were members of the Republican Group (RG), and 52.3% were members of the environmental group (EG). See Table 1 for demographics and information about group membership and Internet and SMU. Demographic differences across groups were assessed using analyses of variance (ANOVAs) and chi-square tests. There were no significant differences regarding time spent on Facebook daily $F(2, 219) = .788$, $p = .456$ or average Internet daily use $F(2, 219) = .900$, $p = .408$. However, age $F(2, 219) = 3.59$, $p = .029$ and time as group member $F(2, 219) = 23.24$, $p < .001$ differed among groups. Post-hoc Tukey tests showed that individuals in the EG ($M = 21.4$, $SD = 3.61$) were older

Table 1. Means and standard deviations for time in group, age, Facebook use, Internet use and percentages for gender, race, and Facebook account by each group and overall.

	RG	DG	EG	All groups
Average age (SD)	20.9 (1.5)	20.06 (1.2)	21.4 (3.61)	20.9 (2.8)
Average of daily Facebook use (SD)	2.6 (2.4)	2.2 (1.5)	1.96 (2.56)	2.18 (2.26)
Average of Internet use (SD)	13.89 (8.1)	11.9 (8.1)	10.9 (8.7)	11.8 (8.4)
Months in the group (SD)	17.9 (16.2)	8.94 (12.0)	5.3 (5.3)	8.9 (11.4)
Male	53.8%	44.4%	29.6%	38.6%
Female	46.2%	55.6%	70.4%	61.4%
Race and ethnicity[a]				
White	100%	93.7%	80.5%	88%
African American	2.6%	4.7%	6.1%	5%
Asian	0%	9.4%	10.4%	9%
Native American	2.6%	3.1%	2.6%	3%
Hispanic/Latino	2.6%	4.7%	6.1%	5.2%
Facebook account	95%	95.4%	95.7%	96.5%

[a]For race, respondents were asked to check all the possible answers that applied; this is why for some groups the total percentage for races adds more than 100%.
RG: Republican Group; DG: Democratic Group; EG: environmental group.

compared to the DG ($M = 20.06$, $SD = 1.2$) and the RG ($M = 20.9$, $SD = 1.5$). The mean of time as members of the RG ($M = 17.9$, $SD = 16.2$) was significantly higher than in the DG ($M = 8.94$, $SD = 12.0$) and the EG ($M = 5.3$, $SD = 5.3$).

There was a statistical difference between groups regarding gender, $\chi^2(2, N = 222) = 8.71$, $p < .05$. No significant difference was observed for Facebook membership, $\chi^2(2, N = 222) = .258$, $p = .879$. Differences for race and ethnicity could not be calculated given the low occurrence of races others than white.

Analysis

A total of four observations had to be dropped because they had only provided demographic information ($N = 218$). Mean values were imputed to missing data. In no case did it exceed 10% of the sample. The analysis was performed using SPSS software version 20 (IBM, 2011).

Two exploratory factor analyses were performed to determine if the three efficacy and the two political participation variables were distinct from each other and that the items measuring each of these variables reflected the expected common underlying processes. It was expected that these analyses would identify three factors related to efficacy perceptions and two factors related to online political participation. In these analyses, items loading with at least .6 on the primary factor and less than .4 in the rest of the factors were retained (Hair et al., 1998). The number of factors was solved by combining the analysis of a scree plot and by the number of factors with eigenvalues larger than 1. Adequate interpretability of factor loadings also suggested an appropriate solution.

Table 2. Rotated factor analysis solution of online collective political efficacy (OCPE), online political self-efficacy (OPSE) and internal political efficacy (IPE).[a]

	Factors		
	1	2	3
OCPE1	.135	**.803**	.126
OCPE2	.171	**.801**	−.029
OCPE3	.125	**.835**	−.030
OCPE4	.110	**.889**	.070
OCPE5	.091	**.849**	.171
OCPE6	.194	**.804**	.083
OPSE1	**.832**	.123	.123
OPSE2	**.852**	.117	.219
OPSE3	**.796**	.046	.110
OPSE4	**.825**	.165	.125
OPSE5	**.778**	.237	.173
OPSE6	**.775**	.021	.250
OPSE7	**.827**	.194	.215
OPSE8	**.792**	.147	.302
OPSE9	**.703**	.235	.126
IPE1	.428	.062	**.789**
IPE2	.354	.111	**.814**
IPE3	.343	.083	**.787**
IPE4	.030	.057	**.773**

[a]Varimax rotation with Eigenvalues > 1 specified, three factors extracted explaining 72.3% of the variance.

An exploratory factor analysis with principal components and varimax rotation revealed that the efficacy items formed three distinct factors with eigenvalues greater than 1 (Table 2). Factor 1 contained all nine items measuring OPSE. The six items related to OCPE loaded in a second factor; while all items measuring IPE, on a third.

The second factor analysis showed that the online participation items formed two factors with eigenvalues over 1. Items that loaded on factor 1 corresponded to online CPP, while items that loaded on factor 2 corresponded to online IPP (Table 3).

Measures

Measures of the dependent, independent, and control variables were averaged by adding the score of each item and dividing it by the number of items.

Dependent variables. IPP ($M = 5.3$, $SD = 1.47$, $\alpha = .93$) was measured with an additive index adapted from Hayes (2009) and Verba and Nie (1987). The preface asked respondents how likely they were to perform the following activities on their own to attain a political objective (1 = very unlikely, 7 = very likely): (1) "express your opinion online regarding a political issue"; (2) "post a political comment on a SNS"; (3) "discuss a

Table 3. Factor analysis solution of collective political participation (CPP) and individual political participation (IPP).[a]

	Factors	
	1	2
CPP1	**.810**	.180
CPP2	**.772**	.221
CPP3	**.884**	.194
CPP4	**.902**	.205
CPP5	**.900**	.181
CPP6	**.778**	.191
CPP7	**.767**	.267
IPP1	.218	**.856**
IPP2	.239	**.833**
IPP3	.237	**.867**
IPP4	.209	**.835**
IPP5	.185	**.827**
IPP6	.161	**.818**

[a]Varimax rotation with Eigenvalues > 1 specified, two factors extracted explaining 72.3% of the variance.

political issue online"; (4) "post a link about politics on a social media website"; (5) "visit a social media site of an activist or political group"; (6) "look at the content of a link posted online by an activist or political group".

CPP (M = 4.3, SD = 1.55, α = .94) was adapted from Verba and Nie (1987) and Brunsting and Postmes (2002). It was measured with an additive index of seven items. It asked respondents, given the opportunity, how likely they were to perform these activities as followers of the group: (1) "talk to a group or person on behalf of your group"; (2) "invite people to participate in your group"; (3) "organize meetings"; (4) "coordinate with others in your group to organize the group's activities"; (5) "coordinate members' tasks"; (6) "support the activities of other members of the group"; and (7) "find useful information online to support the group's activities".

Independent variables. Measurements for OPSE and OCPE were derived from the recommendations by Bandura (2006) for the generation of efficacy measures, such as the use of a scale from 1 to 10.

OPSE (M = 7.5, SD = 2.11, α = .96) comprised of nine items. The preface to the questions was: "How certain are you that you can accomplish the following politically related activities using social media and the Internet?". The questions were: "use social media applications to express your political views"; "express coherently your political ideas to others online"; "influence others online regarding a political issue"; "use social media applications to obtain a political objective"; "gather relevant online resources to express a political view"; "argue effectively with others online"; "use relevant information online to express your political views"; "use the Internet to pursue your political purposes"; "keep informed about political issues you care about using online social media sites and applications".

OCPE ($M = 7.5$, $SD = 1.78$, $\alpha = .91$) was a six-item scale. The preface to the questions asked participants to indicate how certain they were that their group was capable of using social media and the Internet to perform these activities: "let other people know about the advocacy work it performs"; "convince people to support the group"; "find the support of other organizations"; "increase the awareness of the ideas it advocates"; "coordinate its activities"; "help its members with group related tasks".

Task interdependence ($M = 2.3$, $SD = .79$, $\alpha = .93$) has two dimensions: received interdependence, which refers to individuals' perceptions that their tasks depend on others; and initiated interdependence, which refers to perceptions that others' tasks depend on the respondent. Scales used in previous studies (Van der Vegt et al., 1998) were adapted by asking participants about their perceptions of the degree of interdependence for performing the following set of collective online political actions: "interact online with non-members on behalf of your group"; "let non-members learn about the activities of your group"; "advocate in favor of your group"; "organize in person meetings"; "coordinate the group's activities"; "recruit new members." Received interdependence was measured by asking respondents the extent to which individuals perceived they depended on others (1 = Not at all, 2 = Very little, 3 = Somewhat, 4 = Extremely) to perform those actions, while initiated interdependence was measured by asking participants the degree to which they thought others depended on them to perform the actions.

Control variables. IPE ($M = 4.7$, $SD = 1.60$, $\alpha = .86$) was measured using Craig et al. (1990), such as, "I consider myself to be well qualified to participate in politics," and, "I feel that I could do as good a job in public office as most people." The additive index was calculated using four seven-point Likert scale items that asked respondents to express their level of agreement (1 = strongly disagree, 7 = strongly agree).

SMU ($M = 3.9$, $SD = 1.20$, $\alpha = .85$) comprised 10 items (Lin et al., 2012) that asked respondents how frequently (1 = Never, 2 = Rarely, 3 = Monthly, 4 = Weekly, 5 = Several times per week, 6 = Daily, 7 = Several times per day) they performed a set of social media activities, such as "Update your Facebook status", "Create 'events' on Facebook", and "Add or change pictures on Facebook".

Fifteen influential outliers were identified using DFBETAS diagnostics tests for influential outliers (Andersen, 2008: 41) and were omitted from consequent statistical analysis. The new sample size was $n = 203$.

Results

Online efficacy beliefs, task interdependence, and participation in collective actions

Hypothesis 1 stated that OCPE was positively related with participation in online collective actions (CPP). Hypotheses 3 and 4 examined the moderating role of interdependence in the relationship between OCPE and CPP, and OPSE and CPP, respectively.

Time in the group (measured in months) was logarithmically transformed. Interaction terms with standardized values were calculated for all variables. Correlation coefficients for each group were calculated for the relationship between independent

Table 4. Hierarchical regression analyses predicting online collective political participation, *N* = 203.

	Online collective political participation		
	Model 1	Model 2	Model 3
Age (log)	−.013	−.017	−.068
Gender			
Male	.123	.257	.224
Group			
RG	−.442*	−.329	−.479**
DG	−.292	−.284	−.282**
Time as group member (log)	.051	.057	−.009
SMU	.111	−.013	−.045
RG × SMU	.149	.214	.156
DG × SMU	.356*	.479**	.280*
IPE	.223**	.133	.102
OCPE		.325***	.221***
Task interdependence			.515***
Task interdependence Î OCPE			.111*
F(*df*)	4.02(9,192)	6.23(10,191)	14.32(12,189)
R^2 change	.158***	.088***	.230***
R^2	.158	.246	.476

*$p < .05$, **$p < .01$, ***$p < .001$.
RG: Republican Group; DG: Democratic Group; SMU: social media use; IPE: internal political efficacy; OCPE: online collective political efficacy.

and dependent variables. A statistical test of differences in the magnitude of the relationships (Kullback, 1997: 320) suggested that the relationship between use of social media and online collective participation for the Republicans $r(35) = .209$, $p = .215$, the Democrats $r(61) = .539$, $p < 0.01$and the Environmentalists $r(101) = .141$, p = .156 were significantly different, $\chi^2(2) = 8.25$, $p < .05$. This difference was accounted for in the regression analysis through interaction terms. Hypotheses 1 and 3 were tested using a hierarchical regression.

Hypotheses 1 and 3 were supported. Table 4 shows that the first model explained 16% of the variance in CPP, with IPE ($\beta = .223$, $p < .01$) as a significant predictor. A significant difference in levels of participation existed between the reference group (EG) and the Republicans ($\beta = -.442$, $p < 05$). Also, a statistical difference was found in the relationship of SMU and CPP between the EG and the DG ($\beta = .356$, $p < .05$). When OCPE was included in the second model the variance explained increased to 25%, (change in $R^2 = .088$, $F(1, 191) = 22.30$, $p < .001$). This suggests that efficacy at the collective level and regarding online capabilities perceptions, explains participation in collective political actions even when accounting for IPE perceptions.

The third model continued to show that the more individuals felt that their group was capable of using online tools to attain the group's political objectives, the more

Table 5. Regression analyses of the moderating role of interdependence in the relationship between online political self-efficacy and online collective political participation, *N* = 203.

	Collective political participation
Gender	
Male	.161
Age (log)	−.076
Group	
Republicans	−.608**
Democrats	−.326*
Time as group member (log)	−.023
Social media use	−.017
Social media use × Republicans	.142
Social media use × Democrats	.226
Internal political efficacy	.126
Online political self-efficacy	.089
Task interdependence	.569***
Task interdependence × Online political self-efficacy	.048
F(*df*)	12.38 (12, 189)
R^2	.440

* $p < .05$, ** $p < .01$, *** $p < .001$.

individuals tended to participate in online collective actions within the group (β = .221, $p < .001$). Results also showed that this relationship varied depending on the level of interdependence. In tasks individuals perceived as high in interdependence, the stronger the relationship between OCPE and CPP (β = .111, $p < .05$). Other results showed that the difference between the reference group and the RG (β = −.479, $p < .01$) and the DG (β = −.282, $p < .05$) in the predicted levels of online collective participation was significant. Also, a significant difference was found in the relationship between SMU and CPP for the DG (β = .280, $p < .05$) compared to the EG. The final model explained 47% of the variance in participation in online collective actions.

Hypothesis 4 was not supported. The results of the ordinary least squares (OLS) regression performed to test that task interdependence moderated the relationship between OPSE and CPP are presented in Table 5. Standardized values of the variables were used in the analysis. In the model ($R^2 = .440$, $F(12, 189) = 12.385$, $p < .001$), task interdependence (β = .569, $p < .001$) was a significant predictor. In other words, the more members of the group depend on other members, the more they will participate. Also, a significant difference between the Republicans (β = −.608, $p < .01$) and the environmentalists (β = −.326, $p < .05$) was found in their levels of online collective participation (β = .146, $p < .05$). However, no evidence suggested that task interdependence moderated the relationship between OPSE and participation in online collective actions.

In sum, a positive relationship was found between participation in online collective activism and perceptions of online collective efficacy, but that relationship varied depending on the perceived level of interdependence of the tasks. The more individuals

Table 6. Ordinary least squares regression predicting online collective political efficacy, $N = 203$.

	Online collective political efficacy
Gender	
Male	−.159*
Age (log)	.028
Group	
Republicans	−.095
Democrats	.023
Time as group member (log)	−.026
Social media use	.149*
Online political self-efficacy	.320***
F(*df*)	5.6 (7, 194)
R^2	.168

*$p < .05$, **$p < .01$, ***$p < .001$.

perceived that they depended on others and that others depended on them to perform the actions, the stronger the relationship between collective efficacy perceptions and participation in online collective actions. However, task interdependence did not act as a moderator in the relationship between OPSE and online participation at the collective level of agency. OPSE did not explain participation in these online collective activities, providing further evidence that OPSE perceptions might explain activities pertaining to an individual, but not a collective level of agency.

Online political self-efficacy and online collective political efficacy

Hypothesis 2 was supported. An OLS regression was employed to examine the relationship between OPSE and OCPE (Table 6). The model showed ($R^2 = .168$ ($F(7, 194) = 5.616$, $p < .001$)) that the more individuals felt they were capable of using social media to attain their individual political objectives, the more they perceived that the group they belonged to was also capable of using online social media for political purposes ($\beta = .320$, $p < .001$). However, men reported lower levels of OCPE compared to women ($\beta = -.159$, $p < .05$). Also, SMU had a positive relationship with OCPE ($\beta = .149$, $p < .05$). The more individuals used social media, the more efficacious they felt about their group capabilities.

Discussion, limitations, and conclusions

This study examined the relationship between online political efficacy at the collective level of agency and youth's online CPP from a SCT perspective. Results suggest that the level of agency at which the political behaviors are performed should be taken into account when explaining online political participation.

In online collective political activism, individuals do not weigh their OPSE perceptions; rather, they consider their beliefs about what they think the group can do online with what they have, especially in circumstances of high interdependence. Likewise, these perceptions are related to what people believe they can do when they use social media individually for political purposes. This might be because individuals with high levels of OPSE might think that they will be able to convince others about what they can achieve together, whereas those with lower efficacy perceptions might think they can transmit their doubts about their performance, based on their impressions of what they think they can do, as verbal persuasion is one of the sources of efficacy perceptions (Bandura, 1997: 101). Also, it is possible that individuals might judge others' and their group's capabilities based on what they think they are capable of doing.

Regarding the moderating role of interdependence, no evidence supported the idea that in activities perceived as low in interdependence, OPSE should influence collective participation. A possible explanation for this is the nature of the collective actions that were accounted for in this study, as they corresponded to activities that are highly interdependent (e.g. coordinate with others in the group to organize the group's activities). Online political efficacy perceptions at the individual level of agency might influence other actions that, although they refer to a collective, can be performed independently (e.g. share with Facebook friends content posted on the group's page), as findings by Katz-Navon and Erez (2005) suggested. These authors showed that despite being in the same group, when individuals did not depend on others and others did not depend on them for performing a task, it was their individual perceptions of capability that predicted their performance.

The significant difference between groups in the levels of collective actions could be explained in terms of the nature of these groups. Participation in collective activities may be an inherent part of the way in which the EG undertakes its activities, while members of the other two groups did not tend to have these types of participation as a norm in the group. The environmentalists, as a cause-oriented activist group, favor demonstrations across campus, rallies, and public forums. The other two groups focus on electoral cycles, party conventions and policy issues related with each group's ideology. It is also possible that the EG has a broader history of mobilization.

Findings also point at the importance of studying the mechanisms through which general use of social media might translate into self- and CPE perceptions, especially as 83% of young adults in America use them (Duggan and Brenner, 2013). Studies (Ekström and Östman, 2013; Östman, 2012) have found that some SMUs influence individual activism. This study complements this by suggesting that social media is related with collective efficacy perceptions. It might be that youth's SMU and the interactions they experience online might be informing online collective efficacy perceptions through vicarious learning and enactive experiences (Bandura, 1997).

In addition, as political uses of social media become more popular among youth (Enjolras et al., 2013), an understanding of the factors related with their online collective activism becomes more relevant. Although no evidence is presented here that would suggest different patterns of relationships among the variables for an adult population, other studies have found demographic differences regarding efficacy perceptions.

Fernández-Ballesteros et al. (2002) found that younger people felt more efficacious individually and collectively to bring about social change than older ones.

Moreover, the effect that online activism has on political engagement is also different for younger than for older people. Hirzalla et al. (2011) found that for young people, political uses of the Internet mobilized political participation. For adults, on the other hand, it had a normalizing effect. These differences between youth and adults regarding the effects of online political activism have found support in other research (Kruikemeier et al., 2014).

Evidence showing that social media might be an alternative form of collective activism that is contributing to the engagement of youth can be explained by the results in this study. The positive relationship between self- and collective efficacy perceptions might suggest a possible connection between individual and collective online political actions. As one of the most important sources of efficacy information is enactive experience, which allows individuals to learn what they are capable of through their own experiences, the more individuals participate in individual online activism, the more efficacious they become about their own online capabilities. This engenders online collective efficacy, which is positively related to online collective activism. Furthermore, while efficacy perceptions are domain specific, it is also true that they are generalizable to similar activities. Therefore, as groups successfully achieve positive reinforcement online there is a good chance that they will become highly efficacious for achieving their objectives offline. Enjolras et al. (2013) and Harlow (2012) have also found evidence for this overcoming of participation divides.

Following the general definition of efficacy, OCPE is also related to going online and maintaining the activity until it is brought to successful fruition. This might explain the continued efforts of Egyptian activists, as social media was always central to organize and mobilize sympathizers during the years before the Tahrir Square protests (Lim, 2012).

The findings in this study are constrained by the characteristics of the sample. Only information about three groups in a university was collected. This makes this sample homogenous in terms of race, education, and socio-economic background, which have been found to be associated with youth political behaviors (Conroy et al., 2012; Jarvis et al., 2005). In addition, aspects such as the size, interaction styles, and group cohesiveness could influence how groups decide to perform their activities and to use social media.

Bandura's SCT and results of previous studies (Bäck et al., 2011), suggest that expected outcomes also influence political participation. SCT argues that efficacy beliefs act as antecedents of perceived incentives, as individuals act in anticipation of the outcomes that actions might bring to them (Bandura, 1997: 116). Future research should include motivational variables and examine the process that starts with SMU and leads to political participation.

In addition, future research should examine how patterns of online interactions among group members might influence participation. One way to do this would be by exploring if those individuals that interact more on social media with other members of the group and share with them other aspects of their lives present higher levels of participation than those that only use this tool for activities related with the group.

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