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Can media literacy education increase digital engagement in politics?

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ABSTRACT

Online environments are now central to political life, especially for young people. They are prominent contexts for activities that include: fundraising, political debate, sharing political perspectives, mobilizing individuals and groups to act, and applying pressure to governments, corporations, and nonprofits. Much of this online politically focused activity occurs within a broader media ecology that can be characterized as a participatory culture (Jenkins, H., R. Purushotma, K. Clinton, M. Weigel, and A. J. Robison. [2009]. *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Occasional Paper on Digital Media and Learning. Chicago: John D. and Catherine T. MacArthur Foundation). Many have argued that media literacy efforts are needed for youth to fully leverage these digital opportunities, but rigorous studies of such educational efforts are just beginning to emerge. Drawing on an original panel survey, this paper examines whether efforts to promote digital engagement literacies increase youth online engagement in politics. We find that they do. Educators' efforts to foster digital engagement literacies increase youth engagement in participatory politics and in applying targeted political pressure to government, corporations, and nonprofits.

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To argue that digital media are now central to civic and political life for young people in the United States is, in many respects, to state the obvious. A nationally representative survey of youth by Common Sense Media (Robb 2017) found that social media are now the most common source of news for young people ages 13–18. And the importance of social media to politics extends far beyond the acquisition of news. Engagement with social media is now central to the ways politics are practiced. Social media provide a primary means through which funds are raised, people are mobilized, pressure is applied to organizations and state institutions, and perspectives are shared and discussed (Allen and Light 2015; Bennett and Segerberg 2012).

For youth, this transformation appears particularly important (Loader 2007). Indeed, when it comes to many elements of digital engagement in political life, youth have been the innovators and on the leading edge (Krueger 2002). However, although youth are more involved in online political activity than those who are older (Smith 2013), there is also significant evidence that many youth are largely disengaged from civic and political life and that most youth rarely create and

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circulate political content (Cohen et al. 2012). There is a clear need to prepare all youth to better leverage the potential power of online and digital engagement (Mihailidis and Thevenin 2013).

Our focus on digital engagement is also motivated by recognition of the multiple ways that the new media ecology enables participation in what Jenkins et al. (2009) refer to as a *participatory culture*. In a participatory culture, participation is significantly peer-based, interactive, nonhierarchical, independent of elite-driven institutions, and social. Often enabled by the affordances of digital media, youth engaged in a participatory culture circulate, collaborate on, and create content, while connecting with a wide range of individuals who share their interests. Importantly, from the standpoint of political participation, these practices may enable not just the consumption of content, but the production and circulation of information and perspectives as well as calls for action.

Indeed, the political dimensions of this participatory culture, what some refer to as *participatory politics*, may be significant. Individuals can blog about issues or create and circulate political content. They can start or join a political group, launch a fundraising effort, or mobilize one's social network on behalf of a cause. These activities often integrate popular culture and political commentary and they are frequently not guided by elites or formal political institutions. However, these efforts often do aim to influence political institutions by shifting cultural and political understandings and by creating pressure for change (See Kahne, Middaugh and Allen, 2015). Participatory politics are reflected in large scale movements that combine online and on the ground efforts such as: blacklivesmatter and neveragain, the youth led effort to end gun violence, and in countless more locally based initiatives.

It is also important to recognize that forms of engagement within a participatory culture and activities that reflect participatory politics can be problematic – just as problematic dynamics are often part of traditional political participation. For example, those engaged in a participatory culture are still likely to confront and, potentially, contribute to common online problems such as the spread of misinformation (Silverman 2016), echo chambers (Pariser 2011; Sunstein 2007), and incivility (Coe, Kenski, and Rains 2014). In addition, as Fuchs (2011) has detailed, engagement within a participatory culture generally occurs on platforms that are owned and structured by global multimedia corporations that are seeking to commodify participation rather than to further democratic norms and practices. Moreover, as Hobbs (1998) has noted, there has been significant debate among media literacy educators regarding the degree to which media literacy education should focus on content from popular culture. In short, problematic dynamics and debates regarding educational priorities linked to participatory culture and participatory politics should be recognized and attended to by those hoping to prepare youth to effectively engage in these ways (See also Hobbs and Grafe 2015; Jenkins, Ito, and Boyd 2016; Lutz and Hoffmann 2017).

In response to the growing importance of online participatory political engagement, educators concerned with preparing the next generation to engage fully, equitably, and effectively in democratic life are promoting the provision of learning opportunities designed to promote varied civic and digital forms of media literacy (Hobbs 2010; Jenkins et al. 2009; Mihailidis and Thevenin 2013). For example, Mihailidis (2018) has recently proposed a new conceptual focus on 'civic intentionality' – on constructs that speak directly to forms of engagement in civic and political life that promote the common good. At this point in time, however, we lack clear evidence regarding the influence of such opportunities on engagement with digital media for civic and political purposes. Scholars, for example, are just beginning to conceptualize and examine ways that educational interventions might influence young people's abilities to judge the credibility of online content (McGrew et al. 2017), to develop critical media literacies (Garcia, Seglem, and Share 2013), or to navigate the challenges and take advantage of the opportunities associated with online dialogue (Hodgin 2016). Few studies have examined these questions systematically.

This paper responds to one important dimension of this gap in our understanding. It examines the connection between learning opportunities designed to promote capacities for digital engagement and later politically activity (also see Kahne, Lee, and Feezell 2012). Specifically, media literacy has been defined broadly as 'the ability to access, analyze, evaluate, create and act using all forms of

communication’ (National Association for Media Literacy Education 2019). Clearly, the Internet age has led to the need for a new set of digital literacies (see, for example, Buckingham 2003; Jenkins, Purushotma, Clinton, Weigel, and Robison 2009). As Hobbs et al. (2013) state when highlighting the importance of digital media literacies needed for civic engagement, ‘New skills are needed for accessing, analyzing, evaluating, creating, and distributing messages within a digital, global, and democratic society’ (p. 5).

In this study, we are particularly interested in the digital media literacies needed to engage in a participatory culture or in participatory politics. Thus, we focus on a subset of these digital media literacies which we call *Digital Engagement Literacies*. We define *Digital Engagement Literacies* as the capacities to create, comment on, and distribute digital media. These are essential capacities when it comes to youth voice on political topics. Similar sets of digital media literacies are identified by Mihailidis and Thevenin (2013) and in Jenkins et al. (2009). They see ‘participatory competencies’ as a core media literacy competency (Mihailidis and Thevenin, p. 1617). In addition, since our goal is to assess whether educational experiences can foster these competencies, we assess the degree to which schools provide *digital engagement learning opportunities* – opportunities to learn about and practice creating, commenting on, and distributing digital content related to politics. From the studies of efforts to promote these competencies noted above (Hobbs et al. 2013; Jenkins et al. 2009; Mihailidis and Thevenin 2013) as well as from field testing our surveys and from our own work in this area, we know that such learning opportunities can take a variety of forms ranging from in depth programs to teach about media creation to more modest exercises in which students learn about thoughtful ways to blog or comment on blogs (Kahne, Hodgin, and Eidman-Aadahl, 2016).

Unfortunately, as Jenkins et al. (2009), Hargittai and Shaw (2013), Mihailidis and Thevenin (2013) and others have argued, not all youth have developed the digital engagement literacies needed to fully leverage the opportunities presented by the digital age. This shortcoming has helped to create what Jenkins et al. (2009) have referred to as the ‘participation gap.’ Thus, we believe it is important to examine whether digital engagement learning opportunities will enhance online forms of political engagement.

Clearly, educational efforts, both in and out of school, are well positioned to foster digital engagement literacies. Currently, however, there is very limited evidence regarding the effectiveness of these efforts. There are valuable case studies (see, for example, Martens and Hobbs [2015]; Mihailidis and Cohen [2013]; Baron et al. [2014]; Woodall and Lennon [2017]), but we lack experimental studies or panel studies that would strengthen our ability to make causal claims that digital engagement learning opportunities can foster more online political activity. This paper responds to that need by analyzing panel data from an original and nationally representative survey of middle and high school age youth.

The increasing significance of digital engagement learning opportunities

When considering the potential impact of digital engagement learning opportunities on varied forms of online politics, we highlight two forms of online activity: Online Participatory Politics and Targeted Political Pressure. These forms of online political activity might be placed within a range of broader categories such as ‘Connective Action’ (Bennett and Segerberg 2012), ‘e-expressive’ participation (Gibson and Cantijoch 2013), ‘cyber participation’ (Steinberg 2015), and ‘political social networking’ (Bode et al. 2014). By Online Participatory Politics (OPP), we refer to activities that are interactive and peer-based and through which individuals and groups aim to express voice and influence on issues of public concern. By Targeted Political Pressure (TPP), we refer to forms of online protest activity that aim to apply pressure to businesses, nonprofit civic organizations, and governmental entities. Sometimes this Targeted Political Pressure is part of an organized effort, what Jennifer Earl (forthcoming) describes as ‘flash activism.’ This occurs when those engaged in campaigns tied to particular issues mobilize online petitions or in other ways organize online efforts to pressure

institutions to change their practices. Other times, online targeted political pressure may be the act of an individual, more akin to expressing a grievance.

One way in which OPP and TPP differ from more traditional forms of political engagement is that these practices align in important respects with practices youth employ when engaged online in a participatory culture. In particular, these emerging forms of political engagement are closely aligned with the participatory norms that increasingly characterize media culture (Jenkins et al. 2009). For example, practices related to video creation, remixing content, or starting a *Facebook* group, as well as broad familiarity with online social networking practices, will support activities associated with OPP and TPP ranging from blogging and circulating political news, to starting a new political group, to mobilizing one's social network on behalf of a cause or for an event.

As a result, some might assume that youth need few supports in order to leverage the power of these new media and that there is little need for education. Multiple studies indicate that this is not the case. In fact, whether the focus is on the ability to search effectively (Hargittai 2010; Hargittai and Shaw 2013), to judge the credibility of online content (McGrew et al. 2017; Kahne & Bowyer, 2017) or to circulate and produce content to engage politically (Rheingold 2008), there are clear signals of the need to support media literacy among young people. As Rheingold (2008, 99) writes,

This population is both self-guided and in need of guidance: although a willingness to learn new media by point-and-click exploration might come naturally to today's student cohort, there's nothing innate about knowing how to apply their skills to the processes of democracy.

Relatedly, scholars of political participation argue that civic skills are a resource that spur engagement. Those who possess skills 'are more likely to feel confident about exercising those skills in politics and to be effective ... when they do' (Verba, Scholzman, and Brady 1995, 305). Indeed, scholars find that skills and capacities and a related sense of agency promote both higher levels of engagement and the development of an identity as a civic or political actor (Yates and Youniss 1998; see Kirlin [2003] for review). Just as political skills are important in offline contexts, given the growth of online forms of political engagement, it appears crucial to consider ways to promote the online skills needed for the online opportunities available in the digital age.

In what follows, we examine whether digital engagement learning opportunities promote greater online civic and political engagement. This focus is similar to that embedded in many traditional studies of civic education's impact on offline forms of participation (Gould et al. 2011). In those studies, a core assumption is that practicing forms of civic and political participation in classroom settings will develop both capacities for and an interest in engaging in such activities during one's discretionary time. This educational approach also aligns with the logic embedded in Pateman's (1970) classic formulation, where 'the experience of participation in some way leaves the individual better psychologically equipped to undertake further participation' (43).

Our resulting hypothesis is relatively straightforward,

H1: Classroom-based digital engagement learning opportunities will lead to increased engagement in OPP and in TPP.

Data and methods

To explore these questions, we draw upon data from two waves of the Youth and Participatory Politics (YPP) Survey, a nationally representative, three-wave survey of young people in the United States that was conducted between 2011 and 2015. The survey includes multiple measures of political engagement, as well as indicators of learning opportunities in both in-school and non-school settings related to supporting digital engagement literacies. As we describe below, our measures of political engagement rely on data collected in both 2013 and 2015 waves in order to assess adolescents' political development.

Both survey waves were administered by GfK Group (formerly, Knowledge Networks) in English- and Spanish-language versions. Most respondents completed the survey online, although the 2013 survey was administered by telephone interview to some respondents ($N = 129$) who did not respond to invitations to take the online survey. All surveys in 2015 were completed online. Both survey waves included oversamples of African American and Latino youth, and the sampling frames were stratified by age and race/ethnicity. The analyses reported in this paper are weighted so that the data are representative of the national population.

The 2013 survey was administered between 7 July and 7 November 2013 to a sample of 2343 US residents who were 15–27 years old. This sample was drawn from three primary sources. The first consisted of a direct sampling of 18–27-year-olds in GfK's KnowledgePanel (KP), a probability-based internet panel designed to be representative of the US population. The second, also drawn from the KP, was created by contacting panelists GfK knew to be parents of someone in the target age range (i.e., 15–27 years old); if the panelist's household contained at least one person in the target population, then one eligible household member was selected at random to complete the survey. The third sample source was an address-based sample that used the US Postal Service Delivery Sequence File as its sampling frame.

Data collection for the 2015 survey took place between 6 June and 14 November 2015. GfK attempted to contact all eligible 2013 respondents with a request to complete the 2015 survey. Overall, a total of 1,033 respondents completed both the 2013 and 2015 surveys, representing a retention rate of 44% of the 2013 sample.

Because our interest in this paper is on the effects of learning opportunities, we restrict most of our analyses to the sub-sample of respondents who were enrolled in middle school and high school at the time when they took each survey. For those analyses that employ variables relating to learning experiences in 2013, this results in a sample size of 311 students. For the analyses that measure learning experiences in 2015, the sample size is 187 students.

Below we briefly describe the variables employed in our analyses. Full descriptions of these variables, including question wording and coding, as well as descriptive statistics, can be found in the Appendix.

Dependent variables

Our dependent variables are two forms of online political participation: *online participatory politics* and *targeted political pressure*. Online participatory politics is measured with four survey questions that asked respondents how often in the previous 12 months they had recirculated online political content, created and circulated original political content, commented online about political content, and posted status updates or sent electronic messages about 'a political campaign, candidate, or issue.' Responses were reported on a five-point scale ranging from 'never' to 'several times a week.' These were recoded as 0–1 scales and averaged to create our indexes of OPP in 2013 and in 2015, each of which ranges from 0 to 1.

Our measure of targeted political pressure includes four items that gauge whether youth have tried to influence institutions either by signing a petition or have communicated electronically with a governmental, corporate, or community institution in an effort to influence them. For example, we ask, 'In the past 12 months, have you contacted a corporation, company, or business, to protest its practices or policies by sending an email, tweet, or instant message, or by posting a comment on its website or *Facebook* page.' These four dichotomous variables are summed in order to create our indexes of targeted political pressure in 2013 and 2015, which are count variables ranging from 0 to 4.

Key independent variables

Our focus in this study is on the impact of Digital Engagement Learning Opportunities. To gauge the frequency with which students were exposed to these learning opportunities, we constructed a scale

that averaged responses to two questions about the classes that students took. Specifically, students were asked how often they had classes in school in which they ‘Learned about how to create and share digital media’ and ‘Discussed how to effectively share your perspective on social or political issues online (for example, by blogging or tweeting).’¹ These items were field tested with high school students using a think aloud protocol in two communities to ensure that student understanding of the questions was consistent with the researcher’s intent. Both questions used four-point scales, which were recoded to 0–1 scale and averaged to create our indexes of *Digital Engagement Learning Opportunities*.

Control variables

In order to isolate the effects of these learning opportunities from those of other correlates of political participation, the multivariate analyses that we describe below include a host of controls for demographic factors and other variables that might affect youth political engagement. In particular, we include controls for respondents’ gender, race and ethnicity, age, and political interest; their mother’s education level; their parents’ level of activism; and whether the respondent took the 2013 survey by phone. For the analyses of the effects of learning opportunities in 2013, we also include two dummy variables that indicate whether the respondents were enrolled in high school or in college in the 2014–2015 school year.²

Analytic approach

Our analytic approach employed two different designs and was structured to take full advantage of our panel data. First, we created a lagged-dependent variable regression that assesses the contemporaneous effect of digital engagement learning opportunities on online political engagement. Specifically, we assessed the degree to which the 2015 values of our two dependent variables (OPP and TPP) were influenced by our measure of exposure to digital engagement learning opportunities during the 2014–2015 school year. We did this while controlling for the 2013 value of the outcome variable and the control variables described above. This approach provides unbiased estimates of the effects of these learning opportunities on our two measures of political engagement by adjusting any initial differences in the outcome variables that might exist between individuals who were already politically active in these ways and those who were not (Finkel 1995; Halaby 2004). Moreover, simulation studies confirm that, in most situations, the lagged-dependent variable approach produces estimates superior to any available alternative approaches (Keele and Kelly 2006).

While this lagged-dependent variable regression approach has many strengths, our data do not allow us to adjudicate whether the learning opportunities reported in 2015 occurred prior to the political engagement that was reported in 2015. More specifically, the learning opportunities questions asked respondents to consider any classes they took during the 2014–2015 school year and the political engagement questions ask about all such activity that occurred in the previous twelve months. Thus, while we are interested in the effect that learning opportunities have on political engagement, it is possible that the experience of political participation led some students to take classes that focused on digital engagement. The 2015 data do not allow us to disentangle which experience came first. So if students who showed the largest increases in OPP and TPP between 2013 and 2015 tended to become more likely to be exposed to digital engagement learning opportunities in 2015, then our estimate would overstate the causal effect of these learning opportunities on the outcome variable.

Because of this concern, we ran a second regression. In this regression, we examined the impact of our 2013 measure of digital engagement learning opportunities on our 2015 measures of online political engagement, still controlling for our 2013 measures of online political engagement (OPP and TPP) and the other control variables. If the first model may overstate the impact of these learning opportunities, the second model is likely to understate their value. We would expect that much of the impact of the digital engagement learning opportunities captured in the 2013 survey would be

manifest in political participation measured in 2013 and we control for the level of 2013 political activity when assessing the impact of those civic learning opportunities on activities measured in 2015. In addition, since the effects of these learning opportunities on political engagement are likely to dissipate over time, some of the impact of classes taken during the 2012–2013 school year may not be visible in 2015 levels of participation. Thus, we view the estimates from these two regressions as providing an upper and lower bound with respect to the impact of digital engagement learning opportunities.

In estimating the models, we treat our measures of OPP as continuous variables and employ OLS regression. Since our measures of TPP are count variables, we employ Poisson regression when estimating our models for this dependent variable.

Findings

Before turning to the results of hypothesis tests, we present some descriptive statistics regarding the distribution of digital engagement learning opportunities. To provide more precise estimates of the frequency of these learning opportunities, Table 1 presents statistics for the full samples of middle school and high school students in both the 2013 survey ($N = 773$) and 2015 survey ($N = 913$); both surveys are weighted to be nationally-representative. Looking first at learning about creating and sharing digital media, 58% of middle school and high school students reported having this experience at least once as part of a class during the 2012–2013 school year. Two years later, 65% of students said that they had done this at least once in class. Despite this increase, fewer than half of students reported having more than one class session on the topic in either year: 37% of in 2012–2013 and 49% in 2014–2015. The experience of learning to share political perspectives online was even less common in general and did not show an increase between the survey waves. Only 39% of students reported having even one class session where they discussed this in 2012–2013 and 36% did in 2014–2015. Less than a quarter of students in both years had more than one more class session on the topic.

We also examined the rates of youth engagement in OPP and TPP, again using the full samples from 2013 and 2015 (See Table 2). Overall, we found that most youth are not frequently engaged in either activity. Specifically, in 2013, only 39% of youth reported engaging in at least one form of OPP during the prior 12 months. And that rate declined (perhaps because 2012 was a presidential election year) in the 12 months prior to our 2015 survey to 35%. Eleven percent (in 2013) and 10% (in 2015) reported engaging in OPP at least once a week. Similarly, only 29% (in 2013) and 27% (in the 2015 survey) engaged in at least one acct of TPP with 12% (in 2013) and 10% (in 2015) engaging in such activities more than once during the prior twelve months.

We turn to the panel data in Table 3, which displays the mean values for the two measures of online political engagement for 2013 and 2015, as well as their change over time, broken down by whether the students received any digital engagement learning opportunities in each year. These results provide initial support for Hypothesis 1. Those students who reported having some digital engagement learning opportunities display greater levels OPP and TPP in both 2013 and 2015 than those who did not have any exposure to such learning opportunities. Even more importantly,

Table 1. Frequency of digital engagement learning opportunities by year.

Digital engagement learning opportunities	School year	Never (%)	Once (%)	More than once* (%)
<i>Learned about how to create and share digital media</i>	2012–2013	42	20	37
	2014–2015	35	17	49
<i>Discussed how to effectively share your perspective online</i>	2012–2013	61	18	21
	2014–2015	64	15	22

Source: Youth Participatory Politics Survey, 2013 and 2015. Entries are percentages; some rows do not add up to 100% due to rounding. All entries are survey-weighted.

*‘More than once’ column combines two response categories: ‘A few times’ and ‘Often’ in the 2013 survey, and ‘2 or 3 Times’ and ‘More than 3 Times’ in the 2015 survey.

Table 2. Engagement in and targeted political pressure by year.

Survey year	Online participatory politics		Targeted political pressure		
	% Doing at least one OPP activity in last 12 months	% Doing at least one OPP activity at least once/week	% Engaging in no TPP activity in last 12 months	% Engaging in 1 TPP activity	% Engaging in 2 or 3 TPP activities
2013	39	11	71	17	12
2015	35	10	73	17	10

Source: Youth Participatory Politics Survey, 2013 and 2015. Entries are percentages; rows do not add up to 100. All entries are survey-weighted.

Table 3. Mean level of political engagement by digital engagement literacies.

	Digital engagement learning opportunities, 2013		Digital engagement learning opportunities, 2015	
	None (39%)	Some (61%)	None (27%)	Some (73%)
OPP, 2013	.063	.131	.047	.129
OPP, 2015	.052	.171	.033	.163
Δ OPP	-.011	.040	-.015	.035
TPP, 2013	.255	.457	.064	.404
TPP, 2015	.285	.528	.101	.518
Δ TPP	.029	.071	.037	.114

Source: Youth Participatory Politics Survey, 2013 and 2015.

students with some digital engagement learning opportunities, whether assessed in 2013 or in 2015, showed an increased engagement in both OPP and TPP across the two survey years. By contrast, students who had no exposure to digital engagement learning opportunities showed little to no growth in political engagement.

Table 4 presents the estimates of our models of youth political engagement, which provide more rigorous statistical tests of our hypothesis. The first two columns display the results for our linear regression models of online participatory politics. Model 1 provides strong support for Hypothesis 1, indicating that students who were exposed to digital engagement learning opportunities in 2015 displayed greater online participatory political activity in 2015 than did their peers who did not. Even after controlling for the lagged effect of online participatory politics in 2013 and the other control variables, the effect of in-school digital engagement learning opportunities in 2015 on OPP in 2015 is positive and statistically significant. The magnitude of this effect also appears to be fairly large: the difference in expected engagement in OPP in 2015 between a student who reported having the most digital engagement learning opportunities in 2015 compared to one who reported having none represents $\frac{1}{8}$ the scale of our dependent variable. This is the rough equivalent of increasing the frequency of OPP activity by one response category (e.g., from 'once or twice a month' to 'once a week') for two out of the four activities included within the measure.

We find similar support for Hypothesis 1 in Model 2. Again, after accounting for a student's level of engagement in OPP in 2013 and the control variables, our estimate of the effect of digital engagement learning opportunities in 2013 on OPP in 2015 is positive and statistically significant. The magnitude of this effect is rather large, about $\frac{1}{6}$ the scale of the dependent variable. The fact that the estimate of the effect of digital engagement learning opportunities on OPP in Model 2 is even greater than the magnitude of the contemporaneous effect of digital engagement learning opportunities that was estimated in Model 1 is somewhat surprising. This difference in effect sizes could be due to the smaller sample size used in estimating Model 2, but this finding also suggests that the effects of learning opportunities on OPP are durable.

Models 3 and 4 report the findings of the Poisson regression models of TPP and both provide further support for Hypothesis 1. The results for Model 3 indicate that in-school digital engagement learning opportunities in 2015 have a positive, significant effect on TPP, controlling for TPP in 2013 and the other control variables. The exponent of the coefficient indicates that students who had the

Table 4. Models of political participation.

	Dependent variable:			
	Online participatory politics, 2015		Targeted political pressure, 2015	
	(1)	(2)	(3)	(4)
OPP, 2013	0.216** (0.104)	0.141* (0.083)		
TPP, 2013			0.714*** (0.138)	0.331** (0.128)
In-school DELO ^a , 2015		0.177*** (0.060)		1.172** (0.468)
In-school DELO, 2013	0.129** (0.062)		1.937*** (0.541)	
Male	-0.029 (0.036)	-0.028 (0.029)	-0.446 (0.340)	-0.369 (0.267)
White	-0.142 (0.110)	-0.069 (0.064)	-1.097** (0.448)	-0.500 (0.401)
Black	-0.143 (0.112)	-0.060 (0.073)	-2.082*** (0.660)	-1.198** (0.526)
Latino	-0.165 (0.115)	-0.098 (0.070)	-1.782*** (0.589)	-1.183** (0.462)
Age	0.004 (0.011)	0.008 (0.017)	0.112** (0.050)	0.015 (0.053)
Mother has degree	0.029 (0.044)	0.021 (0.029)	-1.022*** (0.372)	-0.219 (0.292)
Enrolled in HS, 2015		-0.031 (0.048)		-0.483 (0.307)
Enrolled in college, 2015		-0.075* (0.044)		-0.472 (0.317)
Political interest	0.162** (0.077)	0.164*** (0.061)	-0.465 (0.593)	0.676 (0.630)
Parental activism	-0.143 (0.089)	-0.072 (0.056)	0.431 (0.561)	0.655 (0.494)
Phone survey, 2013	0.243 (0.163)	0.267* (0.152)	1.560* (0.910)	1.030* (0.570)
Constant	0.131 (0.260)	0.014 (0.295)	-2.432* (1.343)	-1.090 (1.197)
Observations	178	296	173	288

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Entries for models of online participatory politics are linear regression coefficients.

Entries for models of targeted political pressure are poisson coefficients.

Standard errors in parentheses. All estimates are survey-weighted.

Source: Youth Participatory Politics Survey, 2013 and 2015.

^aDigital engagement learning opportunities.

most digital engagement learning opportunities in school in 2015 are expected to be almost seven times more likely to take part in TPP than those who had none ($\exp(1.94) = 6.94$). Similarly, the results of Model 4 indicate that digital engagement learning opportunities in 2013 have a positive, statistically significant effect on engagement in OPP in 2015. The estimated effect is not as quite large as that for Model 3, but it is still sizeable: those students with the most digital engagement learning opportunities in 2013 were more than 3 times more likely to participate in TPP in 2015 than those who had none of these learning opportunities ($\exp(1.17) = 3.23$). All together, the four models all provide clear support for Hypothesis 1, with digital engagement learning opportunities appearing to have a sizeable impact on students' political engagement.

Discussion

When it comes to digital engagement with political content, a diverse array of capacities and commitments are needed. Studies indicate that despite their characterization as 'digital natives,' many youth lack a range of relevant skills (Hargittai and Shaw 2013). For example, recent studies have highlighted that youth often struggle to determine the credibility of online content (McGrew et al.

2017) and to engage in civic inquiry more generally (Middaugh 2017). Moreover, there are many signs that online exchanges are frequently not civil (Shea and Steadman 2010). Indeed, a wide range of skills related to collaboration, participation, critique, and expression are needed (see Hobbs 2010; Jenkins et al. 2009; Mihailidis and Thevenin 2013).

This study focuses on the fundamental question of whether or not digital engagement learning opportunities can foster participation. Specifically, the study provides a rigorous test and indicates that providing students with opportunities to learn about the creation and sharing of digital content leads to online forms of political engagement. Our analyses draw on panel data and find that digital engagement learning opportunities increased the likelihood that youth would engage in two forms of online political activity: Online Participatory Politics and Targeted Political Pressure. Each test provides evidence of a statistically significant impact of these learning opportunities and the magnitude of this impact appears to be substantial. Even after controlling for online political participation in 2013, we find that youth who had exposure to digital engagement learning opportunities were more likely to take part in both TPP and OPP in 2015. And if youth had substantial exposure to digital engagement learning opportunities (meaning more than three class periods focused on these issues), we find that their engagement with OPP increased to a sizable degree and that they were at least 3 times as likely to engage in TPP (when compared to those who had no instruction).

For context, it is important to note that most youth do not frequently engage in either OPP or TPP. As noted earlier (and see Table 2), we found that only 10–11% of youth engage in OPP on a weekly basis and only 10–12% of youth engage in TPP more than once during a 12-month period. In addition, more than 60% of youth did not report ever engaging in OPP – even during an election year – and more than 70% did not report ever engaging in TPP during the prior 12 months.

Indeed, while many youth are exposed to news, perspectives, and mobilization efforts via online platforms and especially via social media, most youth are not active participants. They receive messages, but rarely or never send them or, in other ways, become actively involved politically. Moreover, youth who get involved in online political activities tend to be those who are politically interested and active, who possess digital skills, and who are college educated (see Cohen et al. 2012; Hargittai and Shaw 2013). Thus, substantial inequality exists, when it comes to which youth participate.

Given these realities, findings from this study are encouraging. By increasing efforts to help students develop capacities for digital engagement and by ensuring that these opportunities are provided to all students, educators may significantly increase both the quantity and the equality of young people's online political engagement.

Some might understandably be skeptical of the need for curriculum designed to promote these capacities. After all, many of the skills youth need to participate politically online align closely with skills youth often employ when engaged in social media more generally. Some might also hypothesize that youth know more than their teachers when it comes to these practices and hence question how much support educational efforts could provide. Findings from this study, however, indicate that the potential for civic education in this domain is significant. Educational efforts may well be worthy of substantial attention as they may provide a means of promoting both more extensive and more equitable engagement among youth.

We suspect that the reasons for the efficacy of these digital engagement learning opportunities parallel those that explain the impact of civic education more generally. In particular, adolescence is a time when individuals are beginning to think more broadly about the desirability of various features of a society and they are beginning to think through and imagine how they will support and work to impact particular kinds of civic and political priorities (Erikson 1994; Yates and Youniss 1998). Standard civic learning opportunities such as service learning and related community action projects, discussion of controversial societal issues, and simulations of engagement with varied civic institutions such as Model UN or Mock Trial can provide youth with opportunities to engage civically or politically. They can help youth develop relevant civic skills and a sense of civic and political agency. They have also been found to foster young people's political interests and levels of engagement (Gingold 2013; Kahne and Sporte 2008; Verba, Schlozman, and Brady 1995). More generally,

studies indicate that these curricular experiences support the development of young people's civic identities (Yates and Youniss 1998).

Similar dynamics may well explain the efficacy of educator's efforts to promote digital engagement literacies. While many youth know or could certainly learn how to create and share digital media, many youth will not leverage the affordances of digital media to engage civically or politically if left to their own devices. For that reason, in a way that paralleled studies of offline civic education strategies, our study tested whether engaging youth in structured opportunities to learn about and practice the creation and circulation of political content might lead youth to increase their actual engagement in OPP and TPP. In addition to fostering digital engagement skills, we expected these opportunities to focus students' attention on ways they could use these skills to advance their civic or political priorities and to enable them to experience and develop a sense of agency associated with such activities. In turn, we expected these skills and a related sense of agency would foster increased engagement. Consistent with these expectations, exposure to learning opportunities that aimed to promote digital engagement literacies was associated with more frequent engagement in OPP and TPP. Clearly, as we note below, it will be important to learn more about the nature of particular interventions and to examine the dynamics that may have fostered these desired outcomes.

Limitations and next steps

Although this study provides clear indication that digital engagement learning opportunities can foster greater online political engagement, field trials, in depth qualitative studies of specific interventions and contexts, and experimental tests of particular curricular efforts would strengthen the confidence we have in these findings and our ability to more fully draw out implications. By focusing on particular practices, we would gain clarity regarding what such practices involve and, potentially, of the relative efficacy of varied approaches. It seems likely that some efforts to promote digital engagement literacies could foster greater gains than the results found in our broad assessment. Moreover, focusing studies on specific approaches could help us better understand the reasons particular practices promote higher levels of engagement.

From the standpoint of policy and practice, it is also important to recognize that while the current study examines the impact of learning opportunities that occurred in schools, extracurricular programming also provides these kinds of learning opportunities. Studies by Charmaraman (2013) and Hollett and Ehret (2017), for example, highlight ways extracurricular programming can foster development of varied media literacies tied to creative production, remix, and circulation and can often link to civic engagement and social change. One challenge of assessing the impact of these approaches on future civic and political engagement is the voluntary nature of participation in these programs and the self-selection that characterizes exposure to learning opportunities in non-school settings. That said, we see no reason to believe that the practices found to be helpful in classrooms would not also be efficacious in after-school settings. In fact, since participation is voluntary, since such programming often goes into far greater depth than what occurs in classroom environments, and since such settings are less constrained in the degree to which they surface politically contentious issues, we would expect that these environments are particularly impactful.

Unfortunately, as noted in the introduction, there have been relatively few studies (whether in or out of school) that have examined the degree to which efforts to develop young people's digital engagement literacies ultimately fosters later civic and political engagement. Clearly, more work in this area is needed.

Conclusion

There are good reasons to be concerned that many youth are not involved in online forms of political activity and that engagement is not equitably distributed. For example, predictors of online

involvement and of possessing needed skills are strongly related to educational attainment (Hargittai and Shaw 2013). These concerns highlight the need to understand whether and how digital engagement learning opportunities can promote broader and more equitable engagement among youth. Importantly, for those committed to preparing all youth for full and equitable participation in democratic life, the findings from this study provide strong evidence that educational efforts to foster digital engagement literacies can respond to these problems by increasing youth engagement in online forms of political participation. These findings also signal that efforts to design and implement media literacy initiatives and further study of factors that make such initiatives impactful, are worth the investment.

Notes

1. There were small changes made to the format of these questions and their response options in the two survey waves. The 2013 survey prefaced the questions about learning opportunities with the phrase, 'how often have you had a class where you ...'. The 2015 survey asked about the same experiences, but for each experience asked about three separate contexts: 'Your classes or schoolwork,' 'A school-based activity (like student government or an afterschool club),' 'Your activities outside of school with a neighborhood organization, religious group, etc.' To ensure comparability across the two years, we examine responses to the questions about 'classes or schoolwork' only. In both waves of the survey, respondents were presented with four answer choices to each of the learning opportunity questions. In 2013, the options included, 'Never,' 'Once,' 'A few times,' and 'Often.' The first two options were unchanged in the 2015 survey, but the last two were changed to '2 or 3 Times' and 'More than 3 Times.' We do not believe that any of these changes substantially altered the pattern of responses to these questions.
2. Because the analyses of the effects of learning opportunities measured in 2015 are restricted to students enrolled in high school during the 2014–2015 year, these dummy variables would be redundant in these analyses.

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References

- Allen, D., and J. S. Light, eds. 2015. *From Voice to Influence: Understanding Digital Citizenship in a Digital Age*. Chicago: University of Chicago Press.
- Baron, B., K. Gomex, N. Pinkard, and C. Martin. 2014. *The Digital Youth Network: Cultivating Digital Media Citizenship in Urban Communities*. Cambridge: MIT Press.
- Bennett, W. L., and A. Segerberg. 2012. "The Logic of Connective Action: The Personalization of Contentious Politics." *Information, Communication & Society* 15 (5): 739–768.

- Bode, L., E. Vraga, P. Borah, and D. V. Shah. 2014. "A New Space for Political Behavior: Political Social Networking and its Democratic Consequences." *Journal of Computer-Mediated Communication* 19 (3): 414–429. doi:10.1111/jcc4.12048.
- Buckingham, D. 2003. *Media Education: Literacy, Learning and Contemporary Culture*. Cambridge, UK: Polity Press.
- Charmaraman, L. 2013. "Congregating to Create for Social Change: Urban Youth Media Production and Sense of Community." *Learning, Media and Technology* 38 (1): 102–115. doi:10.1080/17439884.2011.621956.
- Coe, K., K. Kenski, and S. A. Rains. 2014. "Online and Uncivil? Patterns and Determinants of Incivility in Newspaper Website Comments." *Journal of Communication* 64 (4): 658–679. doi:10.1111/jcom.12104.
- Cohen, C., J. Kahne, B. Bowyer, E. Middaugh, and J. Rogowski. 2012. Participatory Politics: New Media and Youth Political Action [YPPSP Research Report]. <http://ypp.dmlcentral.net/publications/107>.
- Earl, Jennifer. Forthcoming. "Technology and Social Media." In *The Blackwell Companion to Social Movements*, 2nd ed., edited by David A. Snow, Sarah A. Soule, Hanspeter Kriesi, and Holly McCammon. Malden, MA: Blackwell.
- Erikson, E. H. 1994. *Youth: Identity and Crisis*. New York: Norton.
- Finkel, S. E. 1995. *Causal Analysis with Panel Data*. Thousand Oaks, CA: Sage.
- Fuchs, C. 2011. Against Henry Jenkins. Remarks on Henry Jenkins' ICA Talk "Spreadable Media," May 30. Downloaded August 8, 2018. <http://fuchs.uti.at/570/>.
- Garcia, A., R. Seglem, and J. Share. 2013. "Transforming Teaching and Learning through Critical Media Literacy Pedagogy." *LEARNing Landscapes* 6 (2): 109–124.
- Gibson, Rachel, and Marta Cantijoch. 2013. "Conceptualizing and Measuring Participation in the Age of the Internet: Is Online Political Engagement Really Different to Offline?" *The Journal of Politics* 75 (3): 701–716. doi:10.1017/S0022381613000431.
- Gingold, J. 2013. *Building an Evidence-Based Practice of Action Civics: The Current State of Assessments and Recommendations for the Future*. CIRCLE Working Paper #78. Medford, MA: Center for Information and Research on Civic Learning and Engagement. https://civicyouth.org/wp-content/uploads/2013/08/WP_78_Gingold.pdf.
- Gould, Jonathan, Kathleen Hall Jamieson, Peter Levine, Ted McConnell, and David B. Smith, eds. 2011. *Guardian of Democracy: The Civic Mission of Schools*. Philadelphia: Leonore Annenberg Institute for Civics of the Annenberg Public Policy Center at the University of Pennsylvania. <https://civicmission.s3.amazonaws.com/118/f0/5/171/1/Guardian-of-Democracy-report.pdf>.
- Halaby, C. N. 2004. "Panel Models in Sociological Research: Theory into Practice." *Annual Review of Sociology* 30: 507–544. doi:10.1146/annurev.soc.30.012703.110629.
- Hargittai, E. 2010. "Digital Na(t)ives? Variation in Internet Skills and Uses among Members of the 'Net Generation.'" *Sociological Inquiry* 80 (1): 92–113.
- Hargittai, E., and A. Shaw. 2013. "Digitally Savvy Citizenship: The Role of Internet Skills and Engagement in Young Adults' Political Participation Around the 2008 Presidential Election." *Journal of Broadcasting and Electronic Media* 57 (2): 115–134.
- Hobbs, R. 1998. "The Seven Great Debates in the Media Literacy Movement." *Journal of Communication* 48 (1): 16–32. doi:10.1111/j.1460-2466.1998.tb02734.x.
- Hobbs, R. 2010. *Digital and Media Literacy: A Plan of Action*. Washington, DC: Aspen Institute Communications and Society Program. https://assets.aspeninstitute.org/content/uploads/2010/11/Digital_and_Media_Literacy.pdf.
- Hobbs, R., K. Donnelly, J. Friesem, and M. Moen. 2013. "Learning to Engage: How Positive Attitudes about the News, Media Literacy, and Video Production Contribute to Adolescent Civic Engagement." *Educational Media International* 50 (4): 231–246. doi:10.1080/09523987.2013.862364.
- Hobbs, Renee, and Silke Grafe. 2015. "YouTube Pranking Across Cultures." *First Monday*, [S.l.], June 2015. ISSN 13960466. Accessed August 9, 2018. <http://firstmonday.org/ojs/index.php/fm/article/view/5981/4699>. doi:10.5210/fm.v20i7.5981.
- Hodgin, E. 2016. "Educating Youth for Online Civic and Political Dialogue: A Conceptual Framework for the Digital Age." *Journal of Digital and Media Literacy* 4 (1–2). <http://www.civicsurvey.org/sites/default/files/publications/Educating%20Youth%20for%20Online%20Civic%20and%20Political%20Dialogue%3A%20A%20Conceptual%20Framework%20for%20the%20Digital%20Age%20%7C%20Journal%20of%20Digital%20and%20Media%20Literacy.pdf>.
- Hollett, T., and C. Ehret. 2017. "Civic Rhythms in an Informal, Media-Rich Learning Program." *Learning, Media and Technology* 42 (4): 483–499.
- Jenkins, H., M. Ito, and D. Boyd. 2016. *Participatory Culture in a Networked Era*. Malden, MA: Polity Press.
- Jenkins, H., R. Purushotma, K. Clinton, M. Weigel, and A. J. Robison. 2009. *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Occasional Paper on Digital Media and Learning. Chicago: John D. and Catherine T. MacArthur Foundation.
- Kahne, J., J. Feezell, and N. Lee. 2012. "Digital Media Literacy Education and Online Civic and Political Participation." *International Journal of Communication* 6: 1–24.
- Kahne, J., E. Middaugh, and D. Allen. 2015. Youth, New Media, and the Rise of Participatory Politics. In *From Voice to Influence: Understanding Digital Citizenship in the Digital Age*, edited by D. Allen and J. S. Light, 35–55. Chicago, IL: The University of Chicago Press. <http://ypp.dmlcentral.net/publications/203>.

- Kahne, J., and S. Sporte. 2008. "Developing Citizens: The Impact of Civic Learning Opportunities on Students' Commitment to Civic Participation." *American Educational Research Journal* 45: 738–766.
- Kahne, J., Hodgin, E., Eidman-Aadahl, E. (2016). "Redesigning Civic Education for the Digital Age: Participatory Politics and the Pursuit of Democratic Engagement." *Theory and Research in Social Education* 44(1): 1–35.
- Kahne, J. and Bowyer, B. (2017). "Educating for Democracy in a Partisan Age: Confronting the Challenges of Motivated Reasoning and Misinformation," *American Educational Research Journal* 54: 3–34.
- Keele, L. J., and N. J. Kelly. 2006. "Dynamic Models for Dynamic Theories: The Ins and Outs of Lagged Dependent Variables." *Political Analysis* 14: 186–205. doi:10.1093/pan/mpj006.
- Kirlin, M. 2003. *The Role of Civic Skills in Fostering Civic Engagement*. CIRCLE Working Paper #6. Medford, MA: Center for Information and Research on Civic Learning and Engagement. <https://civicyouth.org/circle-working-paper-06-the-role-of-civic-skills-in-foster-civic-engagement/>.
- Krueger, B. 2002. "Assessing the Potential of Internet Political Participation in the United States: A Resource Approach." *American Politics Research* 30 (5): 476–498. doi:10.1177/1532673X02030005002.
- Loader, B., ed. 2007. *Young Citizens in the Digital Age: Political Engagement, Young People and New Media*. New York: Peter Lang.
- Lutz, C., and C. P. Hoffmann. 2017. "The Dark Side of Online Participation: Exploring Non-, Passive and Negative Participation, Information." *Communication & Society* 20 (6): 876–897. doi:10.1080/1369118X.2017.1293129.
- Martens, H., and R. Hobbs. 2015. "How Media Literacy Supports Civic Engagement in a Digital Age." *Atlantic Journal of Communication* 23: 120–137.
- McGrew, S., T. Ortega, J. Breakstone, and S. Wineburg. 2017. "The Challenge that's Bigger than Fake News: Civic Reasoning in a Social Media Environment." *American Educator*, Fall. https://www.aft.org/ae/fall2017/mcgrew_ortega_breakstone_wineburg.
- Middaugh, E. 2017. "When Media Literacy Meets Issue Advocacy: Adolescents' use of Media Literacy Strategies in Civic Inquiry." Presentation at the College and University Faculty Assembly of the National Council of the Social Studies, San Francisco, November 15–16.
- Mihailidis, P. 2018. "Civic Media Literacies: Re-Imagining Engagement for Civic Intentionality." *Learning, Media, and Technology* 43 (2): 152–164. (Published online February 6, 2018).
- Mihailidis, P., and J. N. Cohen. 2013. "Exploring Curation as a Core Competency in Digital and Media Literacy Education." *Journal of Interactive Media in Education* 2013 (1): Art. 2.
- Mihailidis, P., and B. Thevenin. 2013. "Media Literacy as a Core Competency for Engaged Citizenship in Participatory Democracy." *American Behavioral Scientist* 57 (1): 1611–1622.
- National Association for Media Literacy Education (NAMLE). 2019. NAMLE Website. Accessed February 5, 2019. <https://namle.net/publications/media-literacy-definitions/>.
- Pariser, E. 2011. "Beware Online 'Filter Bubbles.'" TED video, 8:58, filmed March 2011. https://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles.
- Pateman, C. 1970. *Participation and Democratic Theory*. Cambridge: Cambridge University Press.
- Rheingold, H. 2008. "Using Participatory Media and Public Voice to Encourage Civic Engagement." In *Civic Life Online: Learning How Digital Media Can Engage Youth*, edited by W. L. Bennett, 97–118. Cambridge: MIT Press.
- Robb, M. B. 2017. *News and America's Kids: How Young People Perceive and are Impacted by the News*. San Francisco, CA: Common Sense.
- Shea, D., and B. Steadman. 2010. *Nastiness, Name Calling, and Negativity: The Allegheny College Survey of Civility in American Politics*. Meadville, PA: Allegheny College. <http://sitesmedia.s3.amazonaws.com/civility/files/2010/04/AlleghenyCollegeCivilityReport2010.pdf>.
- Silverman, C. 2016. "This Analysis Shows how Viral Fake Election News Stories Outperformed Real News on Facebook." *Buzzfeed*, November 16. Accessed January 11, 2017. https://www.buzzfeed.com/craigsilverman/viral-fake-election-news-outperformed-real-news-on-facebook?utm_term=.vvpY6dXDR.
- Smith, A. 2013. *Civic Engagement in the Digital Age*. Washington, DC: Pew Research Center's Internet and American Life Project. <http://pewinternet.org/Reports/2013/Civic-Engagement.aspx>.
- Steinberg, A. 2015. "Exploring Web 2.0 Political Engagement: Is New Technology Reducing the Biases of Political Participation?" *Electoral Studies* 39: 102–116. doi:10.1016/j.electstud.2015.05.003.
- Sunstein, C. R. 2007. *Republic.com 2.0*. Princeton, NJ: Princeton University Press.
- Verba, S., K. L. Schlozman, and H. E. Brady. 1995. *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge: Harvard University Press.
- Woodall, J. S., and T. M. Lennon. 2017. "Using Twitter to Promote Classroom and Civic Engagement." In *Teaching Civic Engagement Across the Disciplines*, edited by E. C. Matto, A. R. M. McCartney, E. A. Bennion, and R. Simpson, 135–150. Washington, DC: American Political Science Association.
- Yates, M., and J. Youniss. 1998. "Community Service and Political Identity Development in Adolescence." *Journal of Social Issues* 54 (3): 495–512.