

#Politics in 140 Characters or Less: Twitter as an Educational Tool

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This study examines the influence of Twitter on political knowledge, an individual’s confidence in their knowledge, partisanship, and civility. The study compares two sections of an introductory American politics course at Xavier University. One section served as a test group and was required to tweet on a weekly basis and follow specific Twitter handles. The control group was required to read and discuss the national and local sections of the local newspaper. Changes in political knowledge, partisanship and civility were measured using a pre- and post-test survey.

Social media sites have become a critical way for people to communicate and obtain information. Twitter, one of the most popular social media websites, has changed the way that members of the media and politicians interact with the public. Launched in 2006, Twitter is a recent phenomenon (Lopresti 2013) and, as a result, the field of Twitter-related studies remains small. Nonetheless, early research suggests that Twitter encourages political engagement (Cohn 2009) and connects everyday citizens to public officials, political parties, and campaigns (Zalan et al. 2011). Educators have begun to incorporate Twitter into the classroom in an effort to promote student learning (Elder 2010) and encourage engagement the political sphere (Tian Jin et al. 2012).

Researchers are also exploring whether Twitter has negative effects on the political system. Studies on the effect of Twitter on politics, domestically and abroad, suggest that this new technology may contribute to polarization and political incivility. Moreover, it remains unclear whether Twitter helps or hinders the development of meaningful political knowledge and competency.

This study seeks to assess whether participation in an eight-week current events exercise using Twitter will affect political knowledge, partisanship, and civility among college students in introductory a political science course. Given previous findings, we hypothesize that students participating in the Twitter exercise will experience lower gains in political knowledge and heightened levels of partisanship compared to students who participate in a similar exercise using traditional sources (i.e., newspapers). In addition, we expect students in the Twitter group to express higher levels of incivility than the control group.

Contrary to expectations, our analysis finds that it was Twitter users, rather than newspaper readers, who experienced statistically significant gains in political knowledge. Also surprising was the fact that Twitter users experienced a statistically significant decline in the frequency of political conversation over the course of the semester. The results suggest that Twitter does provide students with exposure to political information, the extent of student engagement may depend more on outside political events than on how students receive their information.

This study will provide additional insight to the impact of Twitter on politics. Our findings could be of particular use to educators, who would benefit from having a clear understanding of the impact of classroom exercises on their students. Although the study was conducted in a university classroom, it may also contribute more generally to research into the effects of social media on political attitudes and behavior in the digital age.

* This paper was presented at the National Conference of Undergraduate Research (NCUR) in LaCrosse, Wisconsin in April, 2013.
changingpolitics

There is significant research on the ramifications of the Internet on political engagement. Scholars suggest that the Internet has the capacity to broaden “political participation by lowering the cost of involvement, creating new mechanisms for organizing groups, and opening up new channels of information that bypass the traditional media gatekeepers” (Di Gennaro and Dutton 2006). Social media sites are a popular way for individuals to utilize the Internet. In Early 2013, the social influence of twitter is undeniable as there are over a half-billion Twitter accounts (Twitter Statistics 2012), a number that increases by two or three every second (Haenlein & Kaplan 2011).

There is significant literature on the civic engagement Twitter has inspired and the ability of social media tools to facilitate interaction and the sharing of information between politicians, the media, outside groups and individual citizens. Twitter has also been examined for its educational qualities; scholars have tried to weigh the pros and cons of Twitter as a tool for advancing knowledge and scope. Whether Twitter makes a “good” or “bad” contribution to education or society, it is global, popular and growing. Despite public and media interest in Twitter, as of yet there is little empirical research into the impact of this relatively new and exceedingly popular social media tool.

Americans’ active use and integration of new technology generated a “new kind of politics more closely matched to the informal, wired, fast-paced world” (Mayer 2010) we live in. This “new kind of politics” allows for a wider, more interactive and global public. It is characterized by the use of these new technologies, which “facilitate participatory politics and mass mobilization, help promote democracy and free markets, and create new kinds of global citizens.” (Aday et al. 2010) This new kind of politics also makes engagement easier and political action less costly (Farrell 2012). Scholars recognized the importance of Twitter as a political engagement tool in the 2008 and 2012 Presidential elections, when reporters and campaigns tweeted extensively to the public.1 The impact of Twitter extends internationally, as well, as the social media network became a tool for organizing and communicating protest activity during the Arab Spring uprisings in Egypt and Tunisia.

Twitter has enlarged the political audience of the American democracy and has created a space for any and all to become political actors; “anyone can be a pundit, a reporter, or a political organizer” (Faris & Etling 2008) through using digital tools such as Twitter. According to Pew Internet and American Life Project, six in ten U.S. Internet users went online to get news or information about politics in 2008. Furthermore, about 20% of Americans are engaging in political dialogue, making comments and posing questions about the political process on social networking sites.2 Political conversation and representation was previously the privilege of the distinctly upper-class (Schattschneider 1997), but digital media has opened the floor to all. Public officials can use Twitter as a self-promoting tool (Aharony 2010) and directly communicate with the polity, but the audience has expanded and become vociferous, so that anyone can bring attention to their political needs. Consequently, an influential leader, or the general audience, has the ability to determine the outcome of an issue or political conflict (Schattschneider 2010).

polarizationandcivility

Many scholars have explored the recent partisan polarization of American politics; some credit this phenomenon to social media sites like Twitter. The Internet and namely, Twitter makes it extremely easy to “carefully regulate this massive inflow of information to create something uniquely suited to our particular interests and needs – a rich and highly personalized blend of

2 Statistical data of Pew and Internet America Life Project via Political Polarization on Twitter (Conovor, Ratkiewics, Francisco, Gonvalves, Flammini, Menczer)
cultural gleaning.” Information is tailored to the kind of “story” the user wants to be exposed to (Cowen 2009).

The phenomenon of personalizing and regulating the information one is exposed to often leads to homophily and clustering; “[Referring] to the propensity of individuals who are similar on some meaningful dimension that form clusters with each other…converge around a common source of online information that is attractive given their shared interests and cluster together only as a secondary consequence of this shared interest.” (Farrell 2012). Many believe the ability to self-select news and information sources yield a more partisan atmosphere. However, it is unclear if the Internet and social networking creates, reflects, or reinforces partisanship. Some academics have suggested that social networking does not generate extreme partisanship but rather makes partisan individuals more partisan (Farrell 2012).

Many observers of American politics have lamented the loss of civility that seems to have accompanied polarization. Civility entails being tolerant in a way that requires active, respectful listening (Billante and Saunders 2002). Homophily that form via the internet engage in uncivil behavior – not actively, but passively – because they do not listen to alternate sources; by self-selecting their information sources, these information seekers are choosing not to listen to out-group sources.

Some scholars suggest that Twitter is not at fault for this incivility, but that the advent of cable television is at fault for providing various sources of information and thus creating self-selecting groups (Scales 2010). In addition, these sources suggest that the norms of civility have been changing since the 1960s (Fukuyama 1999), causing social distance. Not all agree that there have been new civil norms, rather acknowledge violations to the norms of civility, which “imply rudeness and disregard for others” (Edler 2010). Recent literature, measuring levels of civility in the context of social media, concludes that measuring civility online has thus far yielded unclear results (Ng 2006). Thus, it remains to be seen whether social networks sites contribute to declines in civility.

#competenceandknowledge

Theorists have long agreed that “citizens’ sense of political competence is essential to democracy” (Bennet 1997). Almond and Verba (1963), for instance, found that citizens who are confident in their political attitudes are those that become active democratic citizens. At a time when Americans are routinely criticized for their lack of political knowledge, what are we to make of the fact that an overwhelming proportion of Twitter users have used the website as a platform to share political ideas? The Pew Internet and American Life project found that 38% of Twitter users will promote a politician or political idea, while 34% will express their own political beliefs on social-media websites such as Twitter.3

In Delli Carpini and Keeter’s What Americans Know About Politics and Why it Matters (1997), the authors suggest that political knowledge is effected by three distinct variables, individual motivation, ability to learn and opportunity. Opportunity is identified as “the availability of information and how it is packaged” (Delli Carpini and Keeter 179). Twitter has exponentially increased an individuals ability to access information quickly and effectively, suggesting that their political knowledge should grow; however how Twitter “packages” information may not be ideal.

The active use of Twitter as a political platform proposes that citizens are more knowledgable about politics. It has long been assumed that information and knowledge is a “goad to political activity” (Leighley 1991), the knowledgable citizen is the active citizen. Twitter exposes its users to an unprecedented amount of news and information, leading its followers to pay more attention (Cowen 2009) to recent events. Some have expressed concern that the human-mind is incapable of properly filtering all the information available to us on sites such as Twitter (Cowen

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3 Stats from Pew Internet and American Life Project, see Raine et. al. (2012).
2009), suggesting that social media is actually harmful to political education. However, other scholars have suggested that the increased exposure sites such as Twitter give to the public is a positive function. Twitter has the capacity to distribute information, news and emergency updates to the public (Arceneaux and Weiss 2010), that they may have been unable to get through traditional information sources. Twitter exposes users to a constant stream of information which suggests users will have an increase in political knowledge, however the question of the quality of absorption of information remains.

The research suggests that roughly one-third of internet users are using social-media as a platform to communicate political ideas, which begs the question, is the fast pace influx of information of social-media increasing citizen confidence in their knowledge?

#TwitterandTeaching Citizenship in the Classroom
Some of the greatest threats to democracy – for the modern scholar – include a decline in civility, an increased polarization, a decline in confidence and political knowledge. The literature suggests that these trends could undermine citizenship and overall democracy. As a result of these trends, many colleges and universities have promoted efforts to develop good citizenship among undergraduate students. In the classroom, this push can be seen in internships, service-learning, simulations and other forms of high impact experiential learning. Some would contend that incorporating web-based platforms like Twitter in the classroom leads to a more dialogical and essentially educational atmosphere – in and out of the classroom – whereas others would argue that Twitter is uniquely different from an educational setting because there are so many unreliable information sources.

Scholars debate the effect of the 140-character limit on Twitter. One school of thought attests that the character limit “lowers users requirement of time and thought investment for content generation” (Java 2009). Other scholars suggest the limit fosters media literacy, and requires that individuals express themselves competently and clearly (Ebner 2009, 94).

The debate within the literature on the nature of the character limit highlights an important shift in technology-inclusive education. Technology-inclusive education, or E-learning as it is commonly referred to, encourages informal learning (Dunlap and Lowenthal 2009b). This informal learning gives more emphasis to the process of learning rather than content; it allows individuals to use the learning style most conducive to them (Dunlap and Lowenthal, 2009b). In this sort of learning scenario, Twitter is extremely efficient because it allows for unique attitudes and perspectives to form dissenting opinions and ideas (Ebner 2009, 94). Twitter offers a viable education source for students as it offers three unique characteristics: usability (easily accessible for all skill levels), collaboration (connecting with others), and personality (contributing new and personal ideas) (Ebner 2008).

Twitter’s informal learning environment allows for immediate feedback – without spatio-temporal restrictions⁴ – in monitoring the learning process. (Ebner 2009, 97). This environment demands on-going professional and personal relationships between students and professors, stimulates critical thinking, and encourages concise writing for one’s audience (Dunlap and Lowenthal 2009b). Although many would make the argument that these benefits are invaluable, it is undeniable that Twitter can often be time-consuming, addictive and could possibly be detrimental to individuals’ grammatical skills (Dunlap and Lowenthal 2009b).

Utilizing Twitter in the classroom as an informational course tool to promote personal interactions and integrate class material (Rinaldo 2011, 195) has been the object of several case studies throughout the U.S. and abroad (Grosseck 2008). Sometimes these case studies are done

⁴ This elimination of spatio-temporal concerns is largely due to the mobility of technology and access to the internet (not just from computers, but phones and other technological devices).
Multiple disciplines have tried incorporating Twitter into their curriculum, including Accounting (Elder 2010), Ethical Studies (Scales 2010), Communications (Dunlap and Lowenthal 2009b) and Marketing courses (Rinaldo 2011). Within all of these studies, variables are used to measure the effects of Twitter but only one addresses efficacy (Smith 2012).

This study is worth examining because it quantifies the effect of Twitter on students working knowledge of class material and politics. The surveyors hypothesized that by using Twitter, students would realize a greater knowledge. The students' belief that Twitter was helpful in understanding class material and current events also suggested that they believed they would experience an increased knowledge. However, both the students and surveyors were disappointed to find that students who were using Twitter scored no better than students who did not use Twitter. Perhaps one reason for this failed hypothesis is that the surveyors only required students to use Twitter for a one-week period. More significant results may have been yielded had Twitter been required as a part of the course for a longer time. This type of experiment is dependent on who the students are connected with, how frequently they are required to participate and how conscientious they are in their contributions, which may have effected the experiments results (Dunlap and Lowenthal 2009a).

#ResearchQuestion
The recent research on the effect of Twitter on the political sphere demonstrates concerns regarding polarization, incivility, and meaningful absorption of political knowledge. There is some agreement and dissent within the literature resulting from various approaches. Researches from varying disciplines have approached Twitter research, which may explain discrepancies and contentious conclusions. In the field of Political Science, it would be helpful to further explore the effects of Twitter on undergraduate students, and in a broader sense the polity. The literature suggests that Twitter has been conducive to informal learning environments but it fails to address whether Twitter can complement traditional, classroom education. Leading these researchers to question if the implementation of Twitter in a university classroom will affect students political knowledge, partisanship, and civility more so than traditional news sources such as newspapers?

#ResearchDesign
To assess the validity of Twitter as an educational tool a pre- and post-test survey experiment was implemented and control and test groups were established. This study assesses Xavier University students who are enrolled in Introduction to American Government and Politics in the Spring Semester of 2013. There is a total sample size of 42 undergraduates in the course, with 21 students in each section (n=21). The two partipating sections are comprised of relatively similar groups (see Table 1 for group demographics) with a relatively even distribution amongst sex, class level, and majors. However, partisanship varied amongst the sections, one class identified as predominantly democratic while the other identified as more republican.

The sample is self-selective, as it is comprised of students who independently chose to take American Government and Politics. Although the sample is self-selective, the group is representative of students who are interested in taking this type of course (i.e. social science courses). The sample set suggests that the group demonstrates two of the three variables Keeters and Delli Carpini identify as necessary for political knowledge being, motivation (as the student

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5 The project was originally designed to assess students both Introduction to American Government &Politics and Introduction to Comparative Government & Politics. However, the Comparative data and analysis was not incorporated due to an insufficient sample size.
independently signed up for the course suggesting an interest in the material) and ability to learn information (as they are academically eligible university students).

There are two total sections of American Government and Politics during the 2013 Spring Semester. To establish a control group the environment in one of the two sections was manipulated. The control group was required to read the newspaper (The New York Times, USA Today, or The Cincinnati Enquirer) daily to keep up with current events. The remaining section, the test group, was required to tweet on a daily basis and follow a specific set of Twitter handles (in addition to anything the participants wished to personally follow). This set-up allows for control over Ketter and Delli Carpini’s third political knowledge variable, opportunity, as the way the information is “packaged” will be different for each group.

Table 1 – Demographics of the Control and Test Group

<table>
<thead>
<tr>
<th></th>
<th>Test Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>66.7%</td>
<td>52.4%</td>
</tr>
<tr>
<td>Female</td>
<td>33.3%</td>
<td>47.6%</td>
</tr>
<tr>
<td>Freshman</td>
<td>47.6%</td>
<td>38.1%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>19.0%</td>
<td>38.1%</td>
</tr>
<tr>
<td>Junior</td>
<td>19.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Senior</td>
<td>14.3%</td>
<td>23.8%</td>
</tr>
<tr>
<td>Political Science Major</td>
<td>33.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td>International Relations Major</td>
<td>0.0%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Other Major</td>
<td>66.7%</td>
<td>61.9%</td>
</tr>
<tr>
<td>Twitter User</td>
<td>76.2%</td>
<td>57.1%</td>
</tr>
<tr>
<td>Non-Twitter User</td>
<td>23.8%</td>
<td>42.9%</td>
</tr>
<tr>
<td>Extremely Liberal</td>
<td>4.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Liberal</td>
<td>14.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Slightly Liberal</td>
<td>4.8%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Moderate</td>
<td>23.8%</td>
<td>23.8%</td>
</tr>
<tr>
<td>Slightly Conservative</td>
<td>19.0%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Conservative</td>
<td>33.3%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Extremely Conservative</td>
<td>0.0%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Strong Democrat</td>
<td>4.8%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Democrat</td>
<td>4.8%</td>
<td>23.8%</td>
</tr>
<tr>
<td>Independent, Lean Democrat</td>
<td>14.3%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Independent</td>
<td>14.3%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Independent, Lean Republican</td>
<td>33.3%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Republican</td>
<td>28.6%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Strong Republican</td>
<td>0.0%</td>
<td>9.5%</td>
</tr>
</tbody>
</table>

A pre-test survey was administered to each section of the course in pen-paper format at the beginning of the Spring Semester. The survey examined a variety of areas including demographic information (sex, undergraduate year, major etc.), partisanship and ideology, attitudes regarding civility, basic political knowledge and current event. A post-test survey was administered to the course sections 8-weeks after the initial survey and establishment of the control groups. The post-survey assessed the same information, asked the same basic political knowledge questions as the pre-test survey, and again tested knowledge of relevant current events from recent headlines.

Questions were developed based on previous significant research methods and standard measures accepted in the field. Partisanship and ideology were measured on the standard, seven-point scale. A large majority of questions related to civility were modeled after the Powell Tate, KRC Research, Civility in America study. Political knowledge questions were derived from material viewed as standard knowledge in introductory politics class, for example “What is federalism?"
Current events were tested by asking questions derived from headline news in the preceding weeks. In order to quantify the surveys a dataset was created on the SPSS program. Answers were given a specific number and a variable was identified as ordinal or nominal.

To ensure confidentiality participants were assigned a random, unique number between 1 and 100. Students wrote the given number on an index card and placed the card in a sealed envelope that they then wrote their name on. Participants were returned their sealed envelope at the beginning of the 8-week survey in order to write the same, unique number on the post-test survey as the pre-test survey. This process allows the researchers to connect the pre-test survey to the post test survey while ensuring anonymity and confidentiality.

The three dependent variables are political knowledge, civility, and partisanship. Political knowledge is a nominal variable whereas civility and partisanship generally present as ordinal variables. The independent variable in this experiment is whether or not the participant is in the control group (newspaper group). There are some possible intervening variables in this study that must be identified. The amount of time a participant spends on Twitter or reading the newspaper could potentially influence results. However, this variable is being monitored through the survey process.

Due to previous research done in the field, this study hypothesizes that the students in the “tweeting” (test) group will see increases in partisanship and decreases in civility and political knowledge in comparison to the control group. Research has pointed to a significant relationship between Twitter usage and incivility and partisanship due to the creation of homophilous groups. Ketter and Delli Carpini suggest in their research that “opportunity” (accessibility and packaging) is a key variable to political knowledge. Although the test group will have increased exposure to political news due to the usability and mobility of the social network it is unclear if the concise packaging of information on Twitter is high quality. The study anticipates that students in both sections will experience increased levels of political efficacy, i.e., confidence in their ability to participate effectively in politics.

#AnalysisandDiscussion

After collecting the second survey and compiling the data initial analysis points to some interesting findings. A statistically significant change in political knowledge is apparent in the Test (Twitter) group when a T-Test Comparison of Means is performed. (see Table 2). For the first survey, the difference in mean political knowledge scores between the test and control group was not statistically significant, indicating that the two groups started out with similar levels of political knowledge. However, the mean political knowledge scores reported from the post-survey suggest the difference in the mean score of the two groups was statistically significant for survey 2. Though both groups mean score improved, the disparity between the two groups grew. This analysis indicates that the groups started out at similar levels, but the Twitter group saw greater increases in political knowledge over the course of the eight week experiment than the group using traditional news sources.

| Table 2: Political Knowledge at Start and End of the Experiment |
|-------------------|-------------------|-------------------|
|                   | Twitter Group     | Newspaper Group   |
| Mean Score, Survey 1 | 5.33              | 4.76              |
| Mean Score, Survey 2 | 6.81              | 5.14              |
| N                  | 21                | 21                |
| Sig.               | .449              | .024**            |

T-Test Comparison of Means; *p<.10; ** p<.05; ***p<.01

To further investigate the change in political knowledge a paired sample T-test was performed. The paired sample t-test analyzes the progress of the groups individually from survey
one to survey two (the results are presented in Table 3). The Twitter group experienced a significant increase in their mean political knowledge score, with a mean change of +1.476. The newspaper group also experienced improvement in their knowledge (+.381), but the improvement was not statistically significant. Given that both the test and control group were taking the same course and assuming ceteris paribus, these results suggest a positive relationship between the use of Twitter and political knowledge.

### Table 3: Changes in Political Knowledge over course of the Experiment, by Group

<table>
<thead>
<tr>
<th></th>
<th>Mean Score Survey 1</th>
<th>Mean Score Survey 2</th>
<th>Change in Mean</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter Group</td>
<td>5.33</td>
<td>6.81</td>
<td>1.476</td>
<td>.003***</td>
</tr>
<tr>
<td>Newspaper Group</td>
<td>4.76</td>
<td>5.14</td>
<td>3.81</td>
<td>.493</td>
</tr>
</tbody>
</table>

Paired Sample T-Test; *p<.10; ** p<.05; ***p<.01

Political engagement was monitored with the expectation of seeing an increase within the Twitter group. A question on both the pre- and post-surveys asked “How closely do you follow politics?” with a four-point scale of answers ranging from not closely to very closely. The results show a movement in both of the groups from survey one to survey two (as seen in table 4). Interestingly, the Twitter group stated they followed politics less closely with a significant mean change in identification of -.286. The students in the newspaper group identified that they followed politics more closely, with a mean improvement of .190, but the jump was statistically insignificant. These results seem counterintuitive considering that previous research points to Twitter providing an increased exposure to information and thus engagement. These results could potentially be explained by the nature of Twitter, which provides an abundance of information in small packages, not requiring a significant time investment or personal engagement. Whereas, reading the newspaper presents itself as more of a task, requiring more focus and a greater time investment.

### Table 4: Change in “How Closely do you Follow Politics,” by Group

<table>
<thead>
<tr>
<th></th>
<th>Mean Score Survey 1</th>
<th>Mean Score Survey 2</th>
<th>Change in Mean</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter Group</td>
<td>2.62</td>
<td>2.33</td>
<td>-.286</td>
<td>.030**</td>
</tr>
<tr>
<td>Newspaper Group</td>
<td>2.29</td>
<td>2.48</td>
<td>.190</td>
<td>.329</td>
</tr>
</tbody>
</table>

Paired Sample T-Test; *p<.10; ** p<.05; ***p<.01

To further analyze political engagement the participants were asked, “how often do you engage in political conversation?” in both survey one and survey two. As with the previous variable, it was expected that the Twitter group would engage at a greater rate than the newspaper group. However, the data again confirmed the contrary (see table 5). Both groups identified as engaging in political conversation at a lower rate. However, only the newspaper groups change was statistically significant. The natural ebb and flow of politics may explain this trend. The first survey was given around the time of the 2nd inauguration of President Barack Obama, an exciting political time for the American polity. The second survey was given during March, which was much farther from the 2012 election cycle at a time in the semester when you would expect that schoolwork receives (relatively) more attention than politics. Although the data seems to contradict expectations it is not surprising when considering the political cycle.
Table 5: Change in “How often do you Engage in Political Conversation,” by Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Score Survey 1</th>
<th>Mean Score Survey 2</th>
<th>Change in Mean</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter Group</td>
<td>3.19</td>
<td>3.05</td>
<td>-.143</td>
<td>.505</td>
</tr>
<tr>
<td>Newspaper Group</td>
<td>3.38</td>
<td>3.00</td>
<td>-.381</td>
<td>.042**</td>
</tr>
</tbody>
</table>

Paired Sample T-Test; *p<.10; ** p<.05; ***p<.01

Finally, we evaluated partisanship on the assumption that the online format would encourage greater levels of partisanship. The data suggests that there was no change in partisanship for either group (see table 6). Some caution is needed here, however, because the non-finding on partisanship may be due to the limited time period of the experiment or the fact that the Twitter group was giving a specific set, of non-partisan, news handles to follow. In this experiment, many of the Twitter users followed the required list, but did not seek out a more personalized, tailored set of twitter handles. As a result, they did not enter into the types of “clusters” or “homophilious groups” likely to contribute to polarization.

Table 6: Change in Party Strength, by Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Score Survey 1</th>
<th>Mean Score Survey 2</th>
<th>Change in Mean</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter Group</td>
<td>1.29</td>
<td>1.33</td>
<td>.048</td>
<td>.748</td>
</tr>
<tr>
<td>Newspaper Group</td>
<td>1.48</td>
<td>1.48</td>
<td>.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Paired Sample T-Test; *p<.10; ** p<.05; ***p<.01

#Conclusion

This study furthered understanding of the effects of Twitter in the classroom. Inconsistent with the hypothesis, the analysis yields results which suggest Twitter actually improves political knowledge, rather than impedes it. This finding confirms the literature which attests to the quality of concisely-packaged tweets. Additionally, the hypothesis was contradicted by participants’ consistent partisan identification. Previous literature suggests partisan indiduals will become more partisan after using Twitter. This lack of movement can again be explained by the natural ebb and flow of political time, or by the length of the experimental period. Typically, there is more partisan expression during campaigns, elections and political events of interest such as the Presidential inauguration.

Although engagement is not an integral part of the hypothesis, the findings regarding it are noteworthy. Both groups seemed to identify as being less politically engaged from the time of the first survey to the time of the second, in terms of political discussion and actively following current events. This could again be attributed to the political cycle or the increased demand of an undergraduate semester. The study found a positive relationship between the implementation of Twitter and political knowledge, suggesting it to be a positive educational tool for university classrooms. However, this study does have its limitations, such as the small sample size, the short eight-week test period and the self-selection process. Since this experiment has inherent limitations, further research would be beneficial for the field of political science. Further examination should address the strengthening of partisanship, political knowledge and the implementation of Twitter as an educational tool.
Appendix: Political Knowledge Questions

1. What is Federalism?
2. What position does John Roberts hold?
3. Which party controls the US House of Representatives?
4. How long is a Senator’s term?
5. How much of a majority is required for the US Senate and House to override a presidential veto?
6. Which level of government is primarily responsible for declaring a law unconstitutional?
7. If both the President and Vice President die in office, who takes over the Presidency?
8. How many Supreme Court Justices are there?
9. Who is the Majority Leader of the Senate?
10. What position does Ben Bernanke hold?

Works Cited


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