The right to participate in elections is a cornerstone of American democracy. Participation can take many forms, ranging from a voter who shows up on Election Day, a citizen who researches candidates and issues, a participant in a political campaign, to a candidate for office. Over the past two and a quarter centuries, there has been a considerable shift in not only the demographics of voters, but also the political process itself. With advances in communication, the ability of individuals to participate in elections has been greatly enhanced, and has paralleled technological advances by which votes have been cast. As the ability to communicate has evolved from the spoken word, to the written letter carried on horseback, to radio, television, and the Internet, the manner in which Americans have been able to participate in the democratic process has changed as well.

Today, technology, and the Internet in particular, is bringing constant change to American society, including the potential to enhance democracy by fostering participation in the electoral process. Because of the wealth of information available on candidates, issues, and policies, the Internet may foster citizens' ability to cast a more informed vote. As technology evolves and becomes more ubiquitous, it is likely that it will continue to reshape the American political process and landscape.

The enhanced ability for citizens to both procure information as well as participate in the electoral process holds great potential in terms of K-12 social studies. An overriding objective of the social studies is the development of "active, informed citizens," as they acquire the "ability to make informed and reasoned decisions for the public good." As the Internet continues to attract more users, it is an ideal forum for this goal to occur. In a traditional K-12 social studies course, the curriculum may include voting procedures, the history of voting, separation of powers, and parliamentary procedure. While each of these topics is important, they do not necessarily facilitate students to cultivate the "knowledge, skills, and attitudes required to assume the 'office of citizen' in our democratic republic," which is a portion of the position statement of the National
Council for the Social Studies concerning the creation of effective citizens. Moreover, the National Council for the Social Studies' curriculum standards explicitly call for the development of perspective taking among students. With the wealth of information (as well as perspectives) that the Internet provides, its use among K-12 students can greatly facilitate the attainment of the goal of students becoming effective citizens.

Although the terms Internet and World Wide Web are often used interchangeably, they are different mediums. The Federal Networking Council deems the Internet to be a “global information system,” and the World Wide Web (or Web) is a means of communication on the Internet which functions using hypertext markup language, or HTML. The Internet has existed since the 1960s; however, it was not until 1990 that the Web was developed and another three years until the Web browser Mosaic was created. James Gillies and Robert Cailliau argue that it was this development of Mosaic in 1993 that “spark[ed] the expansion of the web that we know today.” Eszter Hargiatti supports this, indicating that 12.77 percent of adults were users of the Internet in 1994, but by 1998, the number rose to 33.84 percent and, by 2001, over half of the inhabitants of the United States (54.66 percent) were Internet users. As a result, the Web is the “chief source of traffic” on the Internet.

In the mid-1960s, Gordon Moore proposed that the technology that is available doubles every 18 months, and its price is reduced in half over the same time period. It is likely that this rapid increase in the use of the Internet is due to this phenomenon, termed Moore’s Law. This is evidenced by the fact that there were roughly 10 Web servers worldwide in August 1992; by February 1998, there were over one million. Further, from 2000-2004, there was a 125 percent increase in worldwide Internet use. These statistics demonstrate that the Internet has “transcend[ed] geographical distance, political boundaries, and chronological divisions to become genuinely ‘worldwide.’”

Relevance to K-12 Social Studies

As a result of the abundance of information available to anybody with an Internet connection, Joseph Braun and C. Frederick Risinger refer to it as a “truly revolutionary development” in the teaching and learning of social studies. However, Cheryl Mason et al. aver that technology use in the social studies classroom should be reflective of course content, “extend learning beyond what could be done without technology,” and at the same time cultivate students’ “development of the skills, knowledge, and participation as good citizens in a democratic society.” In addition to serving as a repository for digital primary sources and lesson plans, the Internet is a medium by which users can find information on political candidates and issues of the present day (and
often the present hour), as well as access information in the form of text, images, and streaming video from various sources from around the world that represent different perspectives. David Hicks and E. Thomas Ewing posit that one method by which K-12 social studies students may take advantage of these resources is by reading the Internet edition of newspapers from around the world, as they argue that recognizing perspectives that are different from one’s own is essential for effective citizenship. This type of social studies-specific information satisfies the criteria Mason et al. advocate, in that technology allows teachers and students to engage in an activity they would otherwise not be able to while simultaneously promoting the development of “good citizens.”

This immediate access to information the Internet provides fits particularly well with several of the National Council for the Social Studies’ Ten Thematic Strands for Social Studies. Among the fundamental questions for students to explore in Theme VI (Power, Authority and Governance) is “How can we keep government responsive to citizens’ needs and interests?” The Internet is a possible conduit for this dialogue, as it allows citizens to correspond with elected officials through electronic mail and Web logs, while also allowing for the posting of Web sites on specific topics. Theme VIII (Science, Technology, and Society) calls for students “to explore the complex relationships among technology, human values, and behavior,” and student evaluation of different Web sites (and their respective perspectives) fosters the development of these associations. Theme IX (Global Connections) states that students should “examine and explore...interactions among states and nations and their cultural complexities.” This is reflected in the Internet’s worldwide scale, as information and varying perspectives are easily accessible, and it is hoped this would lead to the development of more active and informed citizens in terms of foreign policy.

Further credence to the notion of the Internet’s potential as a teaching tool and resource for citizenship education within K-12 social studies lies in the fact that the National Council for the Social Studies has a portion of its Web site (http://www.socialstudies.org/election/) dedicated to the 2004 presidential election. This section not only contains hyperlinks to the official Web sites of five candidates who received their party’s nomination for president in 2004 as well as hyperlinks to the official sites of the parties themselves, but perhaps more importantly for teaching social studies, there is also an annotated list of twenty-five Web sites that would be useful for K-12 teachers as they foster participation in the democratic process among students. Many of these Web sites are presented in a student (and teacher) friendly format in which students can explore and interpret information, rather than passively consume knowledge. This type of discourse lies at the core of active citizenry, and is a
clear example of how the Internet may be used within K-12 social studies
to enhance the democratic process as well as how technology can “extend
learning,” as Mason et al. put forth.²²

Influence on American Democracy

In addition to satisfying several of the National Council for the Social
Studies’ Thematic Strands, the Internet has begun to have a profound
effect on the democratic process, as it had a strong influence on the
manner in which campaigns were conducted during the 2004 presidenti-
Al election and primaries. The Internet served as a medium for can-
didates to reach voters through Internet advertising, as well as offered an
opportunity for candidates to interact with voters through online discus-
sions (such as Web logs or blogs), email, and the candidate’s Web site.²³
Coupled with this, the Internet has transformed fundraising, as “small
donors on the Internet” have “raised hundreds of millions of dollars.”²⁴
This was evidenced in the 2004 Democratic primary campaign of
Vermont governor Howard Dean, who was able to procure “at least $3
million” of contributions from the Internet.²⁵ Ann Mack argues this
ability of citizens to donate to political parties and candidates on the
Internet “has a democratizing effect” on campaign contributions, as cam-
paigns might not ordinarily spend time and energy collecting smaller
offerings.²⁶ In terms of K-12 social studies, this democratizing effect has
vast instructional potential. Virtually every school in the United Srates
has an Internet connection,²⁷ and as a result students may be able to
undertake such activities as viewing a political party’s Web site or writing
an email to a candidate about their stance on a particular issue. In so
doing, not only will students be fulfilling the National Council for the
Social Studies’ goal of the development of perspectives, but participation
in the electoral process (as defined by the researching of candidates and
issues) can become more egalitarian.

In the months prior to the 2004 presidential election, Internet-based
political videos (or Web videos) emerged, which were a new type of dis-
course on both the candidates and pertinent issues.²⁸ These videos were
often created by amateurs who, likely due to Moore’s Law, were able to
take advantage of declining costs of digital video equipment and Web
hosting services.²⁹ In a 2004 study of these videos, it was determined that
the vast majority (73 out of 75) were biased toward (or against) a partic-
ular candidate and many were “fiery and sometimes downright vicious.”³⁰
However, based on a study of the number of hyperlinks to each, the most
popular Web video in this study, “JibJab” (producers of “This Land”), was
relatively equal in terms of impaling the characters and platforms of both
George W. Bush and John F. Kerry.³¹ Although it is difficult to discern the
influence of political Web videos, one estimate is that “This Land” was
viewed 65 million times, as its Web site was emailed around the world. The preponderance of Web videos is an example of how the Internet can influence democracy, and simultaneously holds vast potential for K-12 social studies. Stemming from his 2003 study of student use of Web-based technology in a global history classroom, Robert Scheidet argues that the use of these materials had a "small positive effect" on standardized test scores while also having "positive effects on student interest and motivation." By watching and subsequently evaluating the issues and perspectives that are displayed in Web videos, students will become active consumers of information, which it is then hoped will lead to active citizenship, a prevailing goal of the National Council for the Social Studies.

Because politics on the Internet is a still-evolving medium, there are few rules on its governance. However, the Federal Elections Commission has drafted a "Notice of Proposed Rulemaking" that would potentially limit political speech on the Internet. Although as of this writing the proposition had not become law, in June 2005 the public was given a chance to comment on this rule. In terms of K-12 social studies, this was an excellent opportunity for students to participate in the democratic process, as they researched the issue, formed their own opinion, and subsequently participated in the discussion. In so doing, they were able to generate their own knowledge and perspective, as opposed to being consumers of factual information.

The 2004 presidential election is not the first example of where modern technology had a profound influence on the American political landscape. In the 1908 presidential campaign, both William H. Taft and William Jennings Bryan recorded their speeches in order to reach a wider audience, and beginning in the 1920s, newsreels were used to keep the populace updated with current affairs. The trend of using modern technology in order to reach voters continued throughout the twentieth century. In the 1930s, Franklin D. Roosevelt communicated with Americans via the radio with his "fireside chats," and two decades later, presidential campaigns utilized the television. The 1960 campaign between John F. Kennedy and Richard M. Nixon featured a televised debate, and forty years later, a Web cast of the Republican National Convention took place. This evolving technology and the manner in which it has influenced politics is a matter of importance for K-12 social studies due to its relation to the National Council for the Social Studies’ Thematic Strand of Science, Technology, and Society, as this theme calls for students to "construct examples of how technologies altered the course of history."

The Voting Process

Simultaneous to the change by which individuals have been able to
access information in order to be participative citizens, the means by which votes are cast has also changed, as a polling place in the late eighteenth century looked dramatically different from one in the early twenty-first. Voting in the colonial era, which was restricted to white male landowners, took place by "voice vote or the show of hands." As political parties consolidated power in the nineteenth century, the voting process changed. Citizens (a large percentage of whom were illiterate) voted on what was termed a "ticket," which was a "preprinted list" of different political parties' nominations. This led to corruption, and in violation of states' constitutions, the process made it difficult for citizens to vote in privacy. The mid-nineteenth century advent of the secret ballot alleviated part of the problem, as it allowed citizens not only to vote in privacy but, perhaps just as importantly, without having their vote individually tracked. In terms of voting mechanisms, by the late nineteenth century voting machines were introduced, the 1960s saw the debut of punch cards, and two decades later electronic voting machines started to be used. Clearly, as society has become more technologically advanced, the voting process has changed. Not only has information become more easily accessible, but the manner by which votes are cast has changed as well.

Possible Next Steps

In addition to serving as a conduit for information, the Internet also has the potential to serve as a virtual voting booth. Voting on the Internet has been used by various business establishments as well as non-profit organizations in order to hold elections by which shareholders might vote by proxy or members may vote for a director. Corporations have allowed shareholders to vote by proxy for decades, as the U.S. Security and Exchange Commission regulations call for the distribution of a proxy statement to shareholders before meetings. In order to facilitate the proxy voting process, however, corporations have turned to companies that allow shareholders to vote over the Internet. For the past three years, the College and University Faculty Assembly of the National Council for the Social Studies has also used an Internet voting system for its executive board rather than a paper-and-pencil ballot. This development has increased the efficiency by which votes are counted and helped to ensure anonymity among voters.

Although there are different types of Internet voting, this article describes and refers to the definition of "Remote Internet Voting," in which a citizen votes "over the Internet using a computer not necessarily owned and operated by election personnel," which, it should be noted, is a distinct process from electronic voting machines that are currently in use in some states. Since Internet voting has proven to be successful on a
small scale in private elections, the questions remain as to both the pos-
sibility as well as feasibility of citizens using the Internet to cast votes on a
large scale in public elections. Internet voting has been presented as an
option to voters on two occasions in the United States (by Alaska's
Republican Party's straw poll in 2000 and Arizona's Democratic Party's
primary the same year), but it was not met with enthusiasm by all con-
stituents, as only 1 percent of voters in Alaska utilized this option, and
less than 50 percent did so in Arizona.47

Internet voting has also taken place on small scales in various coun-
tries, but R. Michael Alvarez and Thad E. Hall note that European officials
have realized that Internet voting is still in its infancy, and as a result
have examined its effects in studies that are not only “much smaller in
scope” than their counterparts in the United States, but also survey spe-
cific populations, such as the elderly.48 In three separate trials in Europe in
late 2002 and early 2003, tests of Internet voting were conducted, and in
each case, methods by which to improve the Internet voting process, such
as accounting for firewalls users might encounter and educating voters on
computer use, were discovered.49 These developments notwithstanding,
Internet voting has not been universally advocated; in fact it is a divisive
subject in which there are staunch supporters as well as voracious detrac-
tors.

The debate over whether Internet voting should be permissible in
large-scale public elections need not be limited to policymakers, however,
as this discord presents an excellent issue to explore within K-12 social
studies. Students can examine differing viewpoints, evidence, and perspec-
tives on the issue, and in so doing, will not only meet the National
Council for the Social Studies' goal of becoming more active and engaged
citizens, but due to the nature of the content itself (participation in the
political process), it is likely that they will become more aware of the
myriad issues that citizens face as they participate in our democracy by
voting for elected officials. While these views can be expressed by students
in a traditional essay format, access to the Internet allows students to
actively contribute to the dialogue, as they can post their opinions on
blogs or their own Web sites.

Advocates of Internet Voting

Supporters of Internet voting argue that there is a possibility its
implementation could lead to increased voter participation. Instead of
voters traveling to the polling place, the polling place would instead be
brought to the voters. They would need only to access the Internet to be
able to cast a vote, and as a result, would be able to participate in the
democratic process from the “comfort of their home.”50 Additionally, if
users encountered difficulties, they would be able to access assistance
Advocates also point out that although it has not been Internet-based; voters have been able to cast ballots in locations other than the polling place for decades. Numerous states have lessened absentee ballot restrictions, as anybody who would like to vote by mail is allowed to do so. This need has been recognized by twenty-nine states, as they have enacted early voting legislation which allows citizens to cast their ballots prior to election day. Alvarez and Hall argue that this trend to grant flexibility to citizens in terms of allowing the vote to take place at disparate times and locations demonstrates that "there is a clear niche" among the citizenry to make the voting process a more convenient one. It is apparent that citizens are eager to take advantage of the opportunity to cast their vote from locations other than the polling place; in 2000, 14 percent of votes were submitted either through the mail or early voting, while in 1972, (before the advent of early voting) 4 percent of votes were cast through absentee ballots.

Since 1998, voters in Oregon have not used a traditional polling place, as a Vote-by-Mail (VBM) system has been employed. Through the VBM system, all of the state's elections take place through the mail, as registered voters receive a ballot in the mail and return it by mail or at a drop-off location. This has been shown to be a success, as a record number of voters registered to vote in the 2004 election. Advocates of Internet voting, therefore, argue that if states are able to hold elections with people voting from home, Internet voting is essentially the same process; the difference being that the Internet is "technologically superior" to the mail. This particular argument coincides with the National Council for the Social Studies' Thematic Strand VIII (Science, Technology and Society), which calls for students to be able to question whether technological developments are "always better than that which it will replace."

Perhaps most importantly, advocates describe Internet voting as a means to augment the "quality" of votes. In this regard, "quality" is difficult to measure, but is a reference to the fact that if the Internet is used as a means of voting, it would be simple for a voter to retrieve information on candidates and/or issues simultaneous to voting, which could lead to a more informed electorate. This notion is supported by Mieke Lonneke and Jos Dumortier, who describe the Internet as "an ideal medium to enable people to cast an 'informed vote.'" Furthermore, R. Michael Alvarez, Thad E. Hall, and Guido Schryen indicate that the Web site from which votes are cast could be designed in such a way that voters are made aware of errors that might lead to their ballot being deemed invalid and have their vote thus disregarded.
Detractors of Internet Voting

While critics of Internet voting recognize its potential to augment the process of choosing elected officials, they argue that at this point in time, it is not a feasible option. The major condemnation of Internet and World Wide Web voting is that the security, privacy, and correctness of the tallying cannot be guaranteed. Without these safeguards in place, critics argue, the fundamental idea of a democracy is undermined. Those opposed to Internet voting also contend that it could lead to the buying and selling of votes, the digital divide in the United States would lead to an unfair advantage for certain voters, there is no way to guarantee the identity of the person using the Internet to cast their vote, and it will not necessarily increase voter turnout.

In preparation for the 2004 election, the U.S. Department of Defense Federal Voting Assistance Program worked in conjunction with Accenture to design an Internet voting system referred to as the Secure Electronic Registration and Voting Experiment (SERVE) in order to test the feasibility of Internet voting among selected Armed Forces service members. SERVE's security was tested prior to its implementation, and due to numerous potential security pitfalls, Internet experts recommended "shutting down [its] development immediately" and did not support another endeavor of this sort in the near future. In giving this recommendation, critics were not as disparaging of SERVE itself but rather the fact that the way in which the Internet is structured today with hardware and software makes it difficult to ensure security and thus leaves Internet voting susceptible to compromise. The reviewers warned that a breach in the system could come from a terrorist organization from outside the United States or just a single person with an undergraduate degree in computer science. The Department of Defense took heed of these recommendations, and SERVE's development was subsequently abandoned.

Another major criticism of Internet voting has to do with the secrecy surrounding the actual computer code that is used for the voting to take place. Because Internet voting is frequently run by for-profit companies in a potentially profitable field, proprietary code is often used, with the result being that outsiders cannot look at it for any bugs or glitches for fear of pilfering. The result of this is that computer scientists as well as the general public are unable to look at the code beforehand for errors, and consequently, inaccuracies may not be noticed until Election Day, if ever. Along the same lines, Jason Kitcat argues that if the source code is available, it might lead voters and government officials to look at the voting system with a greater degree of trust. However, available code does not solve another potential problem of Internet voting—it leaves the election exposed to internal security issues.
A second point of contention with Internet voting has to do with the manner in which votes are counted, as it does not leave a paper trail. David Jefferson et al. contend paper trails are necessary as a measure of confidence, without which there is no verification for the voter as to whether the vote that was cast was counted in the intended manner. Additionally, if election officials are left without a paper trail, it would not be possible to conduct a recount of votes. Another peril of not having a paper trail is that it “removes any opportunity to perform bipartisan checks” and, therefore, puts the fate of the election to the “individuals who program, construct, and maintain the machines,” as opposed to the general public.

While advocates describe the convenience of being able to vote from remote locations as a major advantage of Internet voting, this is viewed as a disadvantage by its detractors. For example, Deborah Phillips and Hans von Spakovsky point out that others (such as spouses or parents) might “be privy to personal identifiers needed to ‘secure’ online [Internet] voting” and as a result “could coerce or simply vote in place of family members.” This is especially disconcerting in that a fundamental voting cornerstone is that each citizen is guaranteed the right to a secret ballot (see New York State Constitution, Article 2, Section 7; Florida Constitution, Article 6, Section 1). In the same vein, it is difficult, if not impossible, to protect against others looking at the computer screen while one is casting a ballot. Furthermore, due to the manner in which votes are cast and then uploaded, an election official could feasibly ascertain how each citizen voted.

The matter of privacy also pertains to the notion of the buying and selling of votes. Once again, because Internet voting can take place from any computer in the world, it would not be difficult for individual voters to sell their log in information. A possible remedy of allowing only one vote per Internet address would be problematic as well, as not only could a voting system be duped “into thinking the votes were coming from different addresses,” but more than one “legitimate user” (such as a husband and wife) may use the same Internet address.

Another argument against Internet voting has to do with the phenomenon of the digital divide, which refers to the trend that, in the United States, computers and the Internet are used at different rates based on socioeconomic status. Simply put, individuals with greater income are more likely to have Internet access. This has broad implications in terms of voting, as not only does it make voting more convenient to those with greater income, but at the same time familiarity (or a lack thereof) with computers in general and the Internet in particular may lead some voters to be more reluctant to vote. This is potentially troublesome in light of the fact that a foundation of voting rights pertains to equal access
for all individuals to the voting process. Detractors claim an additional criticism of Internet voting is that a new voting procedure will not necessarily attract more voters to the polls; instead it will make the voting process simpler for those that would be likely to vote by using a traditional or absentee ballot. Critics point to more fundamental issues that affect voter turnout, such as a belief that their vote will not count, or disenchantment with the American political process. Therefore, Internet voting is not viewed as a panacea for a lack of participation. However, if K-12 social studies students are taught to use the Internet as a means of not only finding information but discerning it, it is possible this potential dilemma will be rectified. These students will have had experience retrieving information and taking a stance on different issues, which is a fundamental cornerstone of active citizenship.

Implications

Although the Internet has been a part of mainstream U.S. society for little more than a decade, it is clear it is the latest in a long line of innovations that has had a major influence on this country's democracy. Through a variety of media, it allows citizens instantaneous access to a plethora of both information and viewpoints on various political candidates and issues, and as result, meshes well with several of the thematic strands of the National Council for the Social Studies. As social studies educators prepare students to assume the role of citizen, the ability to procure information, evaluate perspectives, make informed decisions, and understand voting procedures are vital in this development. The Internet has the possibility of improving the teaching and learning of each of these areas, and as a result, not only of transforming social studies education, but enhancing our democracy.

As technology continues to evolve (and according to Moore's Law becomes more affordable), it is likely that the trend of the Internet becoming more ubiquitous in American society will continue. As a result, not only will more individuals have Internet access, but this increased access may lead to a greater number of individuals and organizations posting their views on the Internet. Coupled with this, Moore's Law dictates that access to the Internet among K-12 students will increase, and with the increased Internet connectivity of American society, it is unlikely the conflict between those for and against Internet voting will be abated.

Although empirical research on Internet voting's effects on the general population in public elections does not exist, its absence further demonstrates the notion that this is a topic worthy of consideration for K-12 social studies. Students can utilize the Internet in order to evaluate multiple perspectives and partake in the discourse, and as a result,
develop efficacy and appreciation for democratic participation. As a consequence, it is hoped this will result in students that are discerning consumers of information, and when they reach voting age, have the efficacy as well as desire to become erudite participants in the American democracy.

NOTES

6. Gillies and Cailliau, 236.
15. Dennis A. Trinide and Scott A. Merriman, eds., *History.edu Essays on*
Teaching with Technology (Armonk, N.Y.: M.E. Sharpe, 2001); Phillip VanFossen and James M. Shiveley, “Using the Internet to Create Primary Source Teaching Packets,” *The Social Studies* 91, no. 6 (2000): 244-52.

16. Hicks and Ewing.
17. Mason et al.
19. Ibid., 26
20. Ibid., 28
21. Ibid., 29
22. Mason et al.
29. Ibid.
30. Ibid., 5.
31. Ibid.
37. Ibid.
38. Ibid.
41. Moore, 15.
42. Moore.
43. Ibid.
47. Alvarez and Hall.
48. Ibid., 143.
49. Ibid.
50. Ibid., 5.
52. Alvarez and Hall.
55. Alvarez and Hall, 105.
59. Bradbury.
60. Alvarez and Hall, 6.
67. Ibid.
68. Ibid.
73. Kitcat.
74. Jefferson et al.; Kitcat
76. Jefferson et al.
77. Rebecca Mercuri, Rebecca Mercuri’s Statement on Electronic Voting.
78. Phillips and von Spakovsky, 75.
80. Phillips and von Spakovsky.
81. Jefferson et al.
82. Ibid.
83. Ibid., 63.
85. Ibid.
86. Phillips and von Spakovsky.
87. Ibid.